# DS-6600 Series Audio / Video Encoder

# USER MANUAL

# Version1.2.0

Hikvision® Network Digital Video Server User's Manual

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# Regulatory Information

## FCC Information

**FCC compliance:** This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

## EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC.

2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

## Description on Laser Specification

The optical disc drive such as DVD Super Multi (Double Layer) Drive 22X that is used in this computer is equipped with laser. The classification label with the following sentence is affixed to the surface of the drive.

CLASS 1 LASER
PRODUCT TO IEC60825-1
LASER KLASSE 1

The drive with the above label is certified by the manufacturer that the drive complies with the requirement for laser product on the date of manufacturing pursuant to article 21 of Code of Federal Regulations by the United States of America, Department of Health & Human Services, Food and Drug Administration.
In other countries, the drive is certified to comply with the requirement pursuant to IEC 60825-1 and EN 60825-1 on class 1 laser product.
This computer is equipped with the optical disc drive in the following list according to the model.

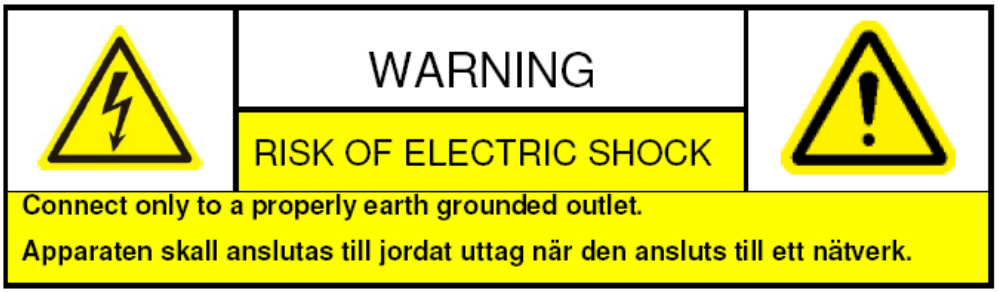
# Safety Warnings and Cautions

**Please pay attention to the following warnings and cautions:**

**Hazardous Voltage may be present:** Special measures and precautions must be taken when using this device. Some potentials (voltages) on the device may present a hazard to the user. This device should only be used by employees from our company with knowledge and training in working with these types of devices that contain live circuits.

Caution
The power supply in this product contains no user-serviceable parts. Refer servicing only to qualified personel.

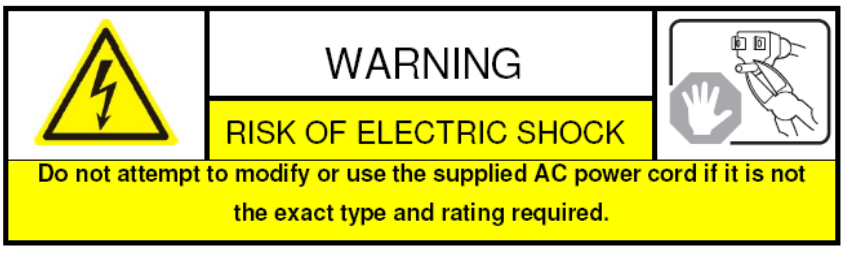
**Power Supply Hazardous Voltage:** AC mains voltages are present within the power supply assembly. This device must be connected to a UL approved, completely enclosed power supply, of the proper rated voltage and current. **No user serviceable parts inside the power supply.**


WARNING
RISK OF ELECTRIC SHOCK
Connect only to a properly earth grounded outlet.
Apparaten skall anslutas till jordat uttag när den ansluts till ett nätverk.

**System Grounding (Earthing):** To avoid shock, ensure that all AC wiring is not exposed and that the earth grounding is maintained. Ensure that any equipment to which this device will be attached is also connected to properly wired grounded receptacles and are approved medical devices.

**Power Connect and Disconnect:** The AC power supply cord is the main disconnect device to mains (AC power).The socket outlet shall be installed near the equipment and shall be readily accessible.

**Installation and Maintenance:** Do not connect/disconnect any cables to or perform installation/maintenance on this device during an electrical storm.


WARNING
RISK OF ELECTRIC SHOCK
Do not attempt to modify or use the supplied AC power cord if it is not the exact type and rating required.

**Power Cord Requirements:** The connector that plugs into the wall outlet must be a grounding-type male plug designed for use in your region. It must have certification marks showing certification by an agency in your region.

The connector that plugs into the AC receptacle on the power supply must be an IEC 320, sheet C13, female connector. See the following website for more information http://kropla.com/electric2.htm.

**Lithium Battery:** This device contains a Lithium Battery. There is a risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the vendor's instructions and in accordance with local environmental regulations.

**Perchlorate Material**: Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate. This notice is required by California Code of Regulations, Title 22, Division 4.5, Chapter 33: Best Management Practices for Perchlorate Materials. This device includes a battery which contains perchlorate material.

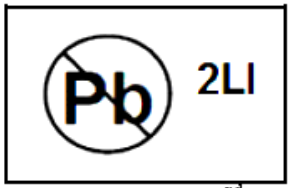
**Taiwan battery recycling:**

Please recycle batteries.

**Thermal and Mechanical Injury:** Some components such as heat sinks, power regulators, and processors may be hot; care should be taken to avoid contact with these components.

**Electro Magnetic Interference:** This equipment has not been tested for compliance with emissions limits of FCC and similar international regulations. This device is not, and may not be, offered for sale or lease, or sold, or leased until authorization from the United States FCC or its equivalent in other countries has been obtained. Use of this equipment in a residential location is prohibited. This equipment generates, uses and can radiate radio frequency energy which may result in harmful interference to radio communications. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is required to take measures to eliminate the interference or discontinue the use of this equipment.

**Lead Content:**




Please recycle this device in a responsible manner. Refer to local environmental regulations for proper recycling; do not dispose of device in unsorted municipal waste.

# Preventive and Cautionary Tips

Before connecting and operating your DVS, please be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Keep all liquids away from the DVS.
- Please check the power supply to avoid the damage caused by voltage mismatch.
- Please make sure the DVS work in the allowed range of temperature and humidity.
- Please keep the device horizontal and avoid the installation under severe vibration environment.
- The dust board will cause a short circuit after damping; Please dedust regularly for the board, connector, chassis fan with brush.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

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# Chapter 1 Introduction

## 1.1 Description

Developed on the basis of the latest encoding technology, DS-6600 Series Audio/Video Encoder Server allows the analog signal to be digitized and then stored in hard disk or transmitted via network.

Adopting the latest embedded processor, DS-6600 Series Audio/Video Encoder Server provides more powerful capabilities in audio/video encoding; standard 1U chassis design maintains easy installation; adoption of newest HDD storage technology ensures safe and reliable data storage; multiple network transmission protocols supported; and code downloaded in FLASH ensures high stability and reliability of system performance.

## 1.2 Models

According to the different resolution, connection to HDD and channel numbers, the DS-6600 Series Encoder Server can be classified into the following models:

- DS-6601HCI, DS-6602HCI, DS-6604HCI
- DS-6601HCI-SATA, DS-6602HCI-SATA, DS-6604HCI-SATA
- DS-6601HFI, DS-6602HFI, DS-6604HFI
- DS-6601HFI-SATA, DS-6602HFI-SATA, DS-6604HFI-SATA
- DS-6604HFI-JX, DS-6608HFI-JX, DS-6612HFI-JX, DS-6616HFI-JX, DS-6620HFI-JX, DS-6624HFI-JX, DS-6628HFI-JX, DS-6632HFI-JX, DS-6636HFI-JX, DS-6640HFI-JX, DS-6644HFI-JX, DS-6648HFI-JX, DS-6652HFI-JX, DS-6656HFI-JX, DS-6660HFI-JX , DS-6664HFI-JX

**Description:**

- **DS-6600HCI Series:** 1/2/4 audio/video inputs, support up to CIF resolution real time and 4CIF not real time; no connection to HDD;
- **DS-6600HCI-SATA Series:** 1/2/4 audio/video inputs; support up to CIF resolution real time and 4CIF not real time; connection to a SATA HDD up to 4TB for local recording;
- **DS-6600HFI Series:** 1/2/4 audio/video inputs; support up to 4CIF resolution real time, with 2CIF, CIF and QCIF selectable; no connection to HDD;
- **DS-6600HFI-SATA Series:** 1/2/4 audio/video inputs; support up to 4CIF resolution real time, with 2CIF, CIF and QCIF selectable; connection to a SATA HDD up to 4TB for local recording;
- **DS-6600HFI-JX Series:** each DS-6604HFI-B module provides 4 audio/video inputs, and up to 16 modules can be configured; up to 4CIF resolution supported, with 2CIF, CIF and QCIF selectable; no connection to HDD.

## 1.3 Features

### Encoding

Support H.264 encoding standard at PS and RTP customized encapsulation formats, of which RTP stream is used for transmission via network and PS stream for recording;

Support encoding at 4CIF, 2CIF, CIF and QCIF resolutions;

Dual stream encoding;

Either compound streams encoding or video stream encoding selectable; audio and video synchronization during compound streams encoding.

## Recording

- **Multiple Recording Periods Configurable**

Up to 8 recording periods can be configured for each day, with different recording type selectable for each recording period.

- **Cycle Recording**

Either cycle recording or non-cycle recording mode is configurable. In cycle recording mode, the earliest recoding will be overwritten when the HDD is full; and in non-cycle recording mode, the system will stop recording and give alert when HDD is full.

- **Scheduled & Event Recording**

Each channel can be set with the scheduled recording and event recording separately, with separate resolution, bit rate, frame rate and stream type configurable.

- **Multiple Record Triggering Modes**

Scheduled recording;

Motion detection recording;

Alarm recording;

Motion detection/alarm recording;

Motion detection & alarm recording;

Manual recording.

- **Pre-recoding and Post-recording**

Support pre-recoding and post-recoding, with the recording time configurable: 0-30sec for pre-recording and 5-600sec for post-recording;

- **Record Files Lock & Unlock**

User may lock/unlock the record files, and the locked record files will not be overwritten in cycle-recording mode.

- **HDD Group Management**
- **HDD Property Settings**

The HDD can be set to read/write, read-only or redundancy properties;

When the HDD is set to read-only, it allows search and playback of record files only, and no data can be written into the disk, including record and log;

When the HDD is set to redundancy, it must be used with the read/write disk for real-time backup of important record data.

## Network

- One 10M/100Mbps self-adaptive UTP Ethernet interface;
- IPv6 is supported.
- TCP/IP protocol, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, and iSCSI are supported.
- TCP and UDP for unicast.
- Automatically get IP address by DHCP protocol;
- Two-way audio and single-directional broadcasting;
- Transmission via RS-232 and RS-485 transparent channels;
- Access to Internet by PPPoE method, and support Peanut Hull, Dyndns, NO-IP, etc.;
- Set time by NTP;

- Remote Web browser access by HTTP protocol;
- Connectable with network HDD in NAS, IPSAN mode;
- Send E-mail by SMTP protocol, and support attachment of captured JPEG image and SSL encryption;
- Remote JPEG image capturing with user-defined image resolution and quality.

## PTZ Control

- **Support Multiple PTZ Protocols**

Different channels can be configured with protocol type, RS-485 address, baud rate, data bit, stop bit, even & odd parity, stream control method, etc.; and remote configuration of presets, patrols and patterns.

- **Digital Zoom (with Speed Dome)**

When connected with speed dome, digital zooming can be realized by clicking on the image through client software.

- **PTZ linkage**

Relay input alarm can be responded with PTZ linkage actions, e.g., callup of predefined presets, patrols or patterns.

## Alarm

- **Relay Alarm Input**

Either NO mode or NC mode can be set;

Four different alarm arming periods are configurable;

Capabilities of triggering corresponding alarm handling methods, relay alarm output, buzzer alarm, upload to control center, PTZ linkage, presets/patrols/patterns callup, etc.

- **Relay Alarm Output**

Relay alarm output can be connected with alarm devices for alarm handling within arming period.

## Exceptions

- **Exception Alarm Handling**

Exception alarms include network disconnect alarm, IP address conflict alarm, illegal access alarm, etc.; multiple alarm handling methods are supported, relay alarm output, buzzer alarm, upload to center, etc.

- **Exception Reboot**

Software watchdog capability: for inspecting important tasks and system resources of device; in case of exceptions detected, the device will be automatically rebooted.

Firmware watchdog: for inspecting the firmware of device; in case of exceptions in system task scheduling, the device will be automatically rebooted.

## User Administration

A maximum of 32 users can be created by the system, including 1 administrator and 31 users. The user name of the administrator is *admin*, which cannot be modified, and the password is allowable to be modified by the administrator only; no deletion of the administrator is allowed, and the administrator is authorized to set the operation permissions for normal users.

## Logs

The system logs can be classified into the operation logs, alarm logs, exception logs and information logs. User may search and view all recorded system logs by date or type, as well as export the logs to the text format over network.

## SDK Interface

Available with SDK in Windows and Linux operating systems;

Available with application software source code for demo;

Available with development support and training service of the application system.

# Chapter 2 Structure

## 2.1 Front Panel

**DS-6600HCI / HFI-SATA:**

Figure 2.1 Front Panel of DS-6600HCI/HFI-SATA

Table 2.1 Front Panel of DS-6600HCI/HFI-SATA

| LED Indicator | Function |
|---|---|
| POWER | Power LED indicator: 1. Lights in red when the device is working; 2. Does not light when the device is powered off. |
| HDD | HDD LED indicator: 1. Blinks in red when data is being read from or written to HDD; 2. Normally lights in red when HDD is error; 3. Does not light in other status. |
| LINK | LINK LED indicator: 1. Normally lights in green when the network connection is functioning properly; 2. Does not light when the network connection is abnormal. |
| Tx/Rx | Tx/Rx LED indicator: 1. Does not light when the network is not connected; 2. Blinks in green when the data is transmitting / receiving; 3. Blinks at higher frequency when the data for transmitting / receiving is larger. |

**DS-6600HCI / HFI:**

Figure 2.2 Front Panel of DS-6600HCI/HFI

Table 2.2 Front Panel of DS-6600HCI/HFI

| LED Indicator | Function |
|---|---|
| POWER | Power LED indicator: 1. Lights in red when the device is working; 2. Does not light when the device is powered off. |
| LINK | LINK LED indicator: 1. Normally lights in green when the network connection is functioning properly; 2. Does not light when the network connection is abnormal. |
| Tx/Rx | Tx/Rx LED indicator: 1. Does not light when the network is not connected; 2. Blinks in green when the data is transmitting / receiving; 3. Blinks at higher frequency when the data for transmitting / receiving is larger. |

**DS-6600HFI-JX:**

Figure 2.3 Front Panel of DS-6600HFI-JX

Table 2.3 Front Panel of DS-6600HFI-JX

| LED Indicator/Interface | Function |
|---|---|
| POWER | Power LED indicator: 1. Lights in red when the device is working; 2. Does not light when the device is powered off. |
| LINK | LINK LED indicator: 1. Normally lights in green when the network connection is functioning properly; 2. Does not light when the network connection is abnormal. |
| Tx/Rx | Tx/Rx LED indicator: 1. Does not light when the network is not connected; 2. Blinks in green when the data is transmitting / receiving; 3. Blinks at higher frequency when the data for transmitting / receiving is larger. |
| RESET | Restore the factory default settings. |
| RS-232 | RS-232 serial port for parameters configuration. |
| AUDIO IN | Connect to audio input devices. |

# 2.2 Rear Panel

**DS-6600HCI / HFI-SATA:**

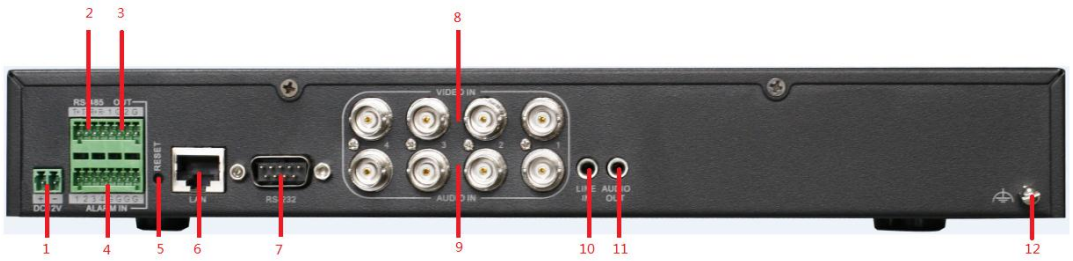



Figure 2.4 Rear Panel of DS-6600HCI/HFI-SATA

Table 2.4 Rear Panel of DS-6600HCI/HFI-SATA

| | Interface | Connection |
|---|---|---|
| 1 | DC12V | 12V DC power supply |
| 2 | RS-485 | RS-485 serial interface for connection to pan/tilt unit, speed dome, etc. |
| 3 | ALARM OUT | Relay alarm output. |
| 4 | ALARM IN | Relay alarm input. |
| 5 | RESET | Restore the factory default settings by holding the *RESET* button for 15 seconds after power is turned on. |
| 6 | LAN | 10M/100Mbps self-adaptive UTP Ethernet interface. |
| 7 | RS-232 | Serial interface for configuration of device's parameters or used as transparent channel. |
| 8 | VIDEO IN | BNC connectors for video input. |
| 9 | AUDIO IN | BNC connectors for audio input. |
| 10 | LINE IN | 3.5mm two-way audio input interface for connection to active pick-up, microphone, etc. |
| 11 | AUDIO OUT | 3.5mm audio output interface for connection to audio output device, e.g., loudspeaker, etc. |
| 12 | GND | Grounding |

**DS-6600HCI / HFI:**

Figure 2.5 Rear Panel of DS-6600HCI/HFI

Table 2.5 Rear Panel of DS-6600HCI/HFI

| | Interface | Connections |
|---|---|---|
| 1 | GND | Grounding |
| 2 | DC12V | 12V DC power supply |
| 3 | RS-485 | RS-485 serial interface for connection to pan/tilt unit, speed dome, etc. |
| 4 | ALARM OUT | Relay alarm output. |
| 5 | ALARM IN | Relay alarm input. |
| 6 | RESET | Restore the factory default settings by holding the *RESET* button for 15 seconds after power is turned on. |
| 7 | LAN | 10M/100Mbps self-adaptive UTP Ethernet interface. |
| 8 | RS-232 | Serial interface for configuration of device's parameters or used as transparent channel. |
| 9 | VIDEO IN | BNC connectors for video input. |
| 10 | AUDIO IN | BNC connectors for audio input. |
| 11 | LINE IN | 3.5mm two-way audio input interface for connection to active pick-up, microphone, etc. |
| 12 | AUDIO OUT | 3.5mm audio output interface for connection to audio output device, e.g., loudspeaker, etc. |

**DS-6600 HFI-JX:**

Figure 2.6 Rear Panel of DS-6600HFI-JX

Table 2.6 Rear Panel of DS-6600HFI-JX

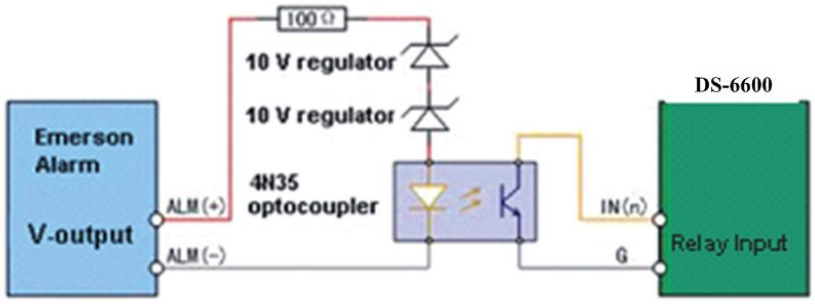
| | Interface | Connections |
|---|---|---|
| 1 | VIDEO IN | BNC connectors for video input. |
| 2 | LAN | 10M/100Mbps self-adaptive UTP Ethernet interface. |
| 3 | ALARM IN | Relay alarm input. |
| | ALARM OUT | Relay alarm output. |
| | RS-485 | RS-485 half-duplex interface |
| 4 | LINE IN | 3.5mm voice talk input interface for connection to active pick-up, microphone, etc. |
| 5 | AUDIO OUT | 3.5mm audio output interface for connection to audio output device, e.g., loudspeaker, etc. |
| 6 | POWER | 220VAC power supply |
| 7 | GND | Grounding |

# 2.3 Alarm Connections

## 2.3.1 Alarm Input Connections

DS-6600 supports the open/close relay input as the alarm input mode. For the alarm input signal not in open/close relay signal mode, please follow the connections shown as below:

Alarm input connections for Emerson Alarm:




Note: the corresponding relay input port of DS-6600 should be set to NC mode.

Figure 2.7 Alarm Input Connections for Emerson Alarm

Alarm input connections for Normal Alarm:

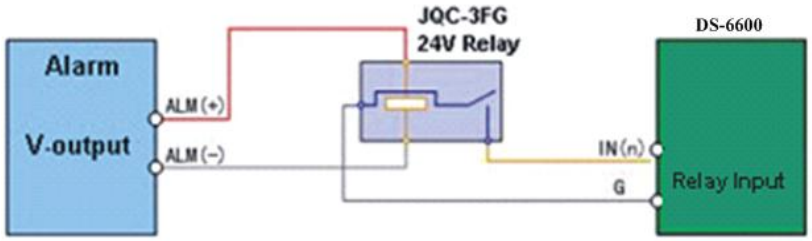



Figure 2.8 Alarm Input Connections for Normal Alarm

## 2.3.2 Alarm Output Connections

DS-6600 supports the open/close relay input as the alarm output mode. The alarm input can be selected to *NO* or *NC*. Different alarm output connection methods are applied to the AC or DC load. Please refer to the following diagram:

Alarm output connections diagram:

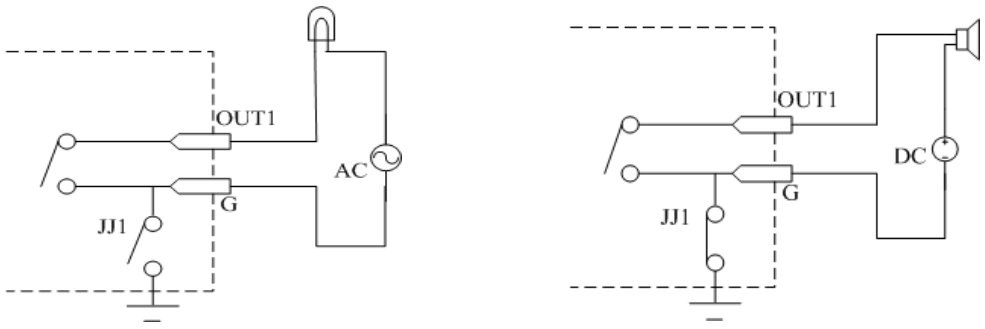



Figure 2.9 Alarm Output Connections

Please note the different connections of JJ1 shown above.

For DC load, JJ1can be safely used both in *NC* and *NO* methods, and it is recommended to use within the limit of 12V/1A. For external AC input, JJ1 must be open. The motherboard provides two jumpers, each corresponding to one alarm output. And both of two jumpers are factory set to be connected.

# Chapter 3 Network Parameters Configuration

***Purpose:***

If you don't know the IP address of the encoder and this is not the first time you use the encoder, you can use SADP (IP finder) software or the Serial port tools to find out the IP address of the encoder and to configure the IP address or other network parameters of it. It is recommended to change the default IP address for the first time to use it.

This chapter aims to tell the procedures of using the SADP software and the Hyper Terminal Software to find and configure the IP address and other parameters of the device.

***Note:***

For the first-time user, the default user name of DS-6600 is *admin*, and password is *12345*. And the default IP address is *192.0.0.64*.

## 3.1 Hyper Terminal Setup

The common method is to connect encoder and PC with serial line, run Hyper Terminal and modify parameters with serial command. Please connect the RS-232 port of encoder with the COM port of PC directly, power on the encoder and PC and follow the steps:

**Step1: Enter Hyper Terminal.**

Click "Start"-> "Programs"->"Accessories"-> "Communications"->"Hyper Terminal" in Windows system, and the dialogue box below will appear:

Figure 3.1 Create New Connections

**Step2: Name the connection and define the icon.**

Input a name (e.g. HK), select an icon, and press "OK" to enter "Connect To" dialogue box.

**Step3: Select the communication port.**

Select "COM1" in "Connect To" interface (Please select the COM port according to the reality, in case PC has more than 1 COM.). Press "OK" to enter "Properties" dialogue box.

Figure 3.2 Select Communication Port

**Step4: Serial port setup.**

Set port parameters in "COM1 Properties" dialogue box as follow:

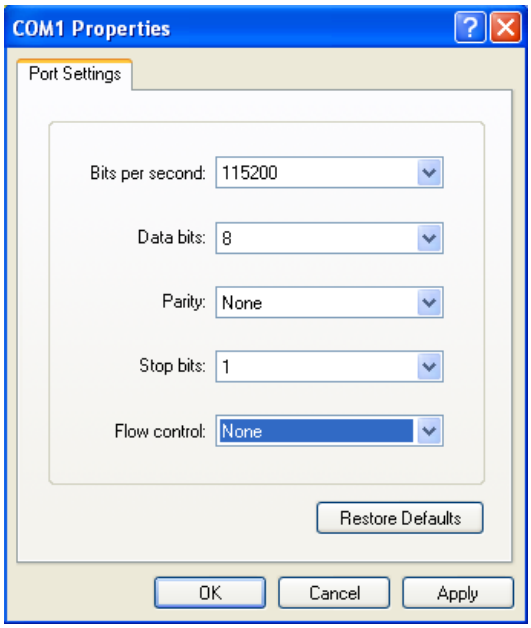



Figure 3.3 Set up Port

The parameters should be:

Bits per second: 115200

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None

Press “Apply” and “OK” after the setup.

Press “Enter” under Hyper Terminal interface. When “$” appears, the connection is established.

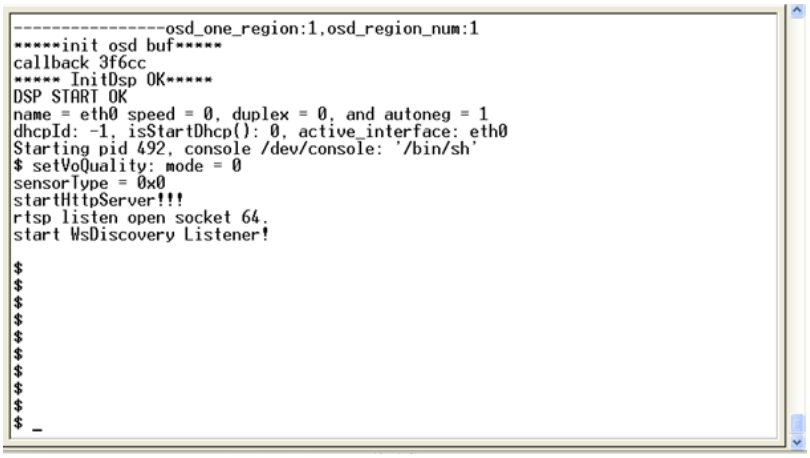

----------osd_one_region:1,osd_region_num:1
*****init osd buf*****
callback 3f6cc
***** InitDsp OK*****
DSP START OK
name = eth0 speed = 0, duplex = 0, and autoneg = 1
dhcpId: -1, isStartDhcp(): 0, active_interface: eth0
Starting pid 492, console /dev/console: '/bin/sh'
$ setVoQuality: mode = 0
sensorType = 0x0
startHttpServer!!!
rtsp listen open socket 64.
start WsDiscovery Listener!
$ _

Figure 3.4 Test the Establishment of Connection

**Step5: Disconnect and save connection**

According to the tips, disconnect and save “HK” for the next time. After saving, there will be a new “Hyper Terminal” item established in the program group “Start”-> “Accessories”->“Communications”->“Hyper Terminal”. “Connection” names of all Hyper Terminal are included. You can see an icon named as “HK” here.

Figure 3.5 Disconnect and Save Connection

# 3.2 Network Configuration by Hyper Terminal

**Enter Hyper Terminal**

***Steps:***

1. Click “Start”->“Programs”->“Accessories”->“Communications”->“Hyper Terminal”->“HK”, then the Hyper Terminal interface will appear.
2. Press “Enter” and the symbol “$” will appear which means the current default login user is *guest* (please refer to Table 3.1 for the permission of *guest* user account).

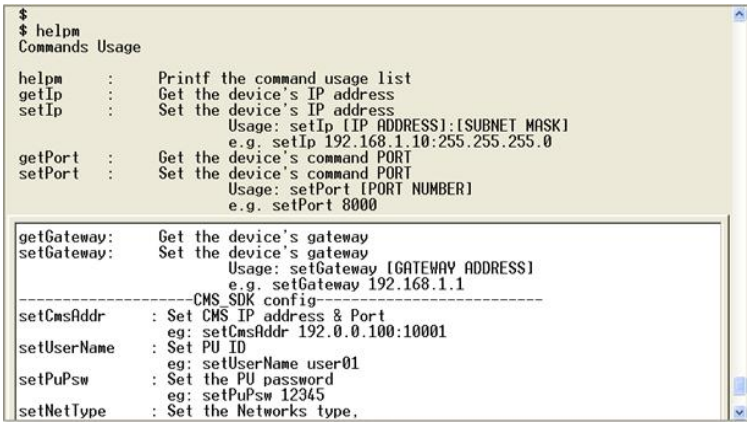

$
$ helpm
Commands Usage
helpm : Printf the command usage list
getIp : Get the device's IP address
setIp : Set the device's IP address
Usage: setIp [IP ADDRESS]:[SUBNET MASK]
e.g. setIp 192.168.1.10:255.255.255.0
getPort : Get the device's command PORT
setPort : Set the device's command PORT
Usage: setPort [PORT NUMBER]
e.g. setPort 8000
getGateway: Get the device's gateway
setGateway: Set the device's gateway
Usage: setGateway [GATEWAY ADDRESS]
e.g. setGateway 192.168.1.1
----------CMS_SDK config----------
setCmsAddr : Set CMS IP address & Port
eg: setCmsAddr 192.0.0.100:10001
setUserName : Set PU ID
eg: setUserName user01
setPuPsw : Set the PU password
eg: setPuPsw 12345
setNetType : Set the Networks type,

Figure 3.6 Enter *guest* User Account

3. Enter *admin* user account.
   (1) Type "su admin" and press "Enter".
   (2) Input the password (default: 12345) of the *admin* user account.
   (3) Press "Enter" to have the symbol "#"on the interface which indicates the current login user is *admin*.

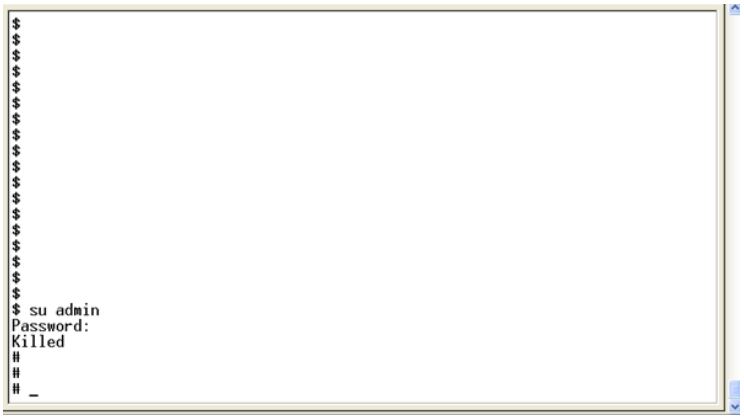



Figure 3.7 Enter *admin* User Account

4. Type the commands described in Table 3.1 to configure the parameters of the device.

Table 3.1 Description of Commands

The *admin* and *guest* have different permission to use commands. Please refer to the following table:

| Command | guest | admin | Description |
|---|---|---|---|
| helpm | √ | √ | Console help command is used to print common commands |
| getIp | √ | √ | Get the current IP address of the device. Command format: *getIp* + "Enter". |
| setIp | × | √ | Set IP address.<br>Command format: *setIp* IP: mask, e.g., *setIp 192..168.1.11:255.255.255.0* |
| getPort | √ | √ | Get data port of the current video server. Command format: *getPort*+ "Enter". |
| setPort | × | √ | Get data port of the video server. Default port: 8000, command format: *getPort*+Port No., e.g., *setPort 9000*. |

| | | | |
|---|---|---|---|
| getGateway | √ | √ | Get current gateway address. Command format: *getGateway*+ "Enter". |
| setGateway | × | √ | Set gateway.<br>Command format: *setGateway* Gateway, e.g., setGateway 192.168.1.1. |
| setEnaAlarmSms | × | √ | Enable SMS alarm. |
| setWhiteList | × | √ | Set whitelist. |
| getWhiteList | √ | √ | Get whitelist. |
| delWhiteList | × | √ | Delete whitelist. |
| setOffLineTime | × | √ | Set offline time. |
| setCmsAddr | × | √ | Set IP address of push mode. |
| setUserName | × | √ | Set user name of push mode. |
| setPuPsw | × | √ | Set password of push mode. |
| setNetType | × | √ | Set network type. |
| showPuParam | √ | √ | Get push mode parameters. |
| setSdkPrint | × | √ | Set push mode print. |

If you want to switch to *guest* from *admin*, you may type the "su guest" command. When symbol "$" appears, it indicates the current user account has switched to *guest*.

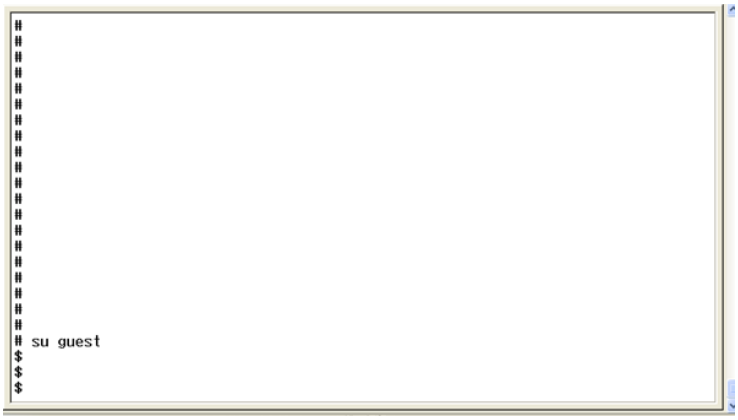



Figure 3.8 Switch to *guest*

# Chapter 4 Access to DS-6600 by Client Software

The DS-6600 Series Audio/Video Encoder can be accessed by iVMS-4200 client software (provided in attached CD). Please refer to the *User Manual of iVMS-4200 Client Software* for more information.

The computer which runs the iVMS-4200 client software should meet the following requirements:

Operating System: Microsoft Windows 2000 or higher

CPU: Intel Pentium IV 2.4 GHz or higher

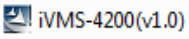
RAM: 1G or higher

Display: 1024×768 resolution or higher

## 4.1 Installing the Client Software

Insert the DX4500/DX4600 resource disc into the remote computer CD/DVD drive, and wait for the window to open.

Follow the installation prompts to install the software.

**Step1:** Double click the program file 

to enter the following InstallShield Wizard as shown below:

iVMS 4200(v1.0) - InstallShield Wizard
Welcome to the InstallShield Wizard for iVMS 4200(v1.0)
The InstallShield Wizard will install iVMS 4200(v1.0) on your computer. To continue, click Next.
< Back
Next >
Cancel

Figure 4.1 Welcome to InstallShield Wizard

**Step2:** Click “Next” to start to install the InstallShield Wizard. Select the language (English) for installation, and then click “Next” to continue the installation.

iVMS 4200(v1.0) - InstallShield Wizard
Setup Type
Select the setup type that best suits your needs.
Select the features you want to install, and deselect the features you do not want to install.
Click Next to continue.
English
Chinese
InstallShield
< Back
Next >
Cancel

Figure 4.2 Select Language

**Step3: Install vcredist_x86 patch/Card Driver/WinpCap**

Select the driver you want to install.

vcredist_x86 patch:for X86 operating system

Card Driver: for compression card

WinpCap: for open source software, SADP driver

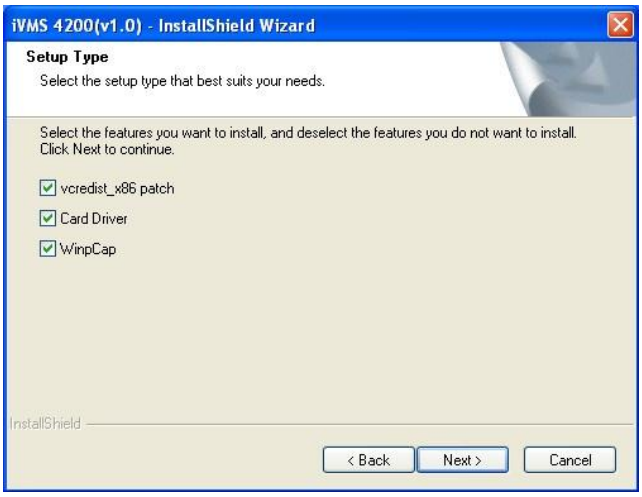

iVMS 4200(v1.0) - InstallShield Wizard
Setup Type
Select the setup type that best suits your needs.
Select the features you want to install, and deselect the features you do not want to install.
Click Next to continue.
vcredist_x86 patch
Card Driver
WinpCap
InstallShield
< Back
Next >
Cancel

Figure 4.3 Select Driver

**Install vcredist_x86 patch**

Start to install the vcredist_x86 patch and then click “Next” to continue.

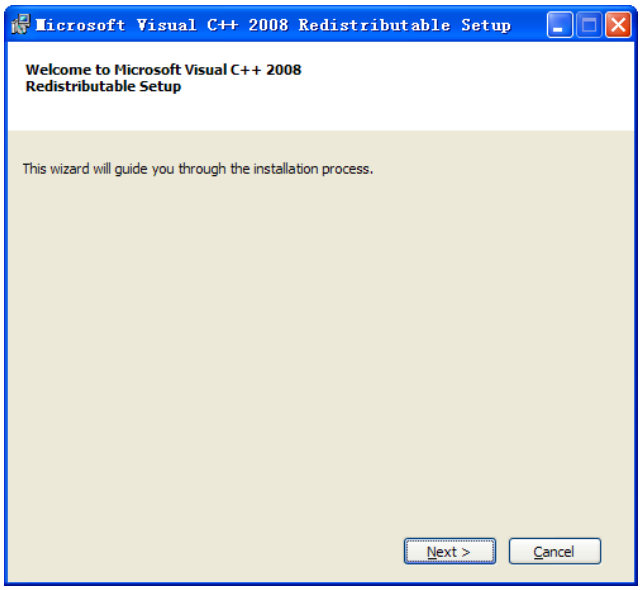

Microsoft Visual C++ 2008 Redistributable Setup
Welcome to Microsoft Visual C++ 2008 Redistributable Setup
This wizard will guide you through the installation process.
Next >
Cancel

Figure 4.4 Install vcredist_x86 patch-Start Installation

In the License Terms dialog box, click "I have read and accept the license terms", and then click "Install" to install the vcredist_x86 patch.

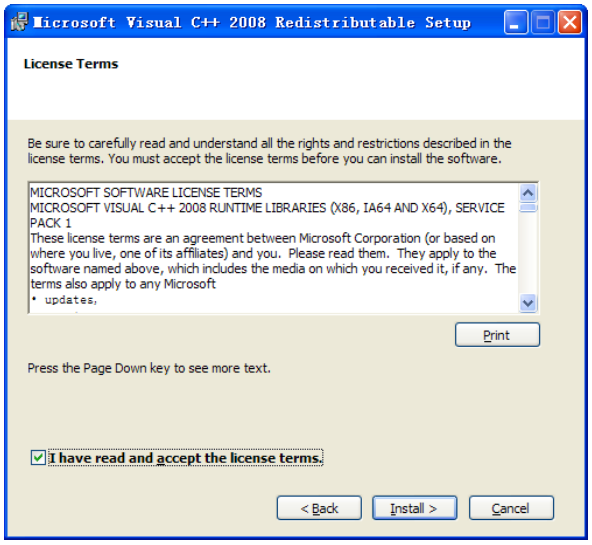

Microsoft Visual C++ 2008 Redistributable Setup
License Terms
Be sure to carefully read and understand all the rights and restrictions described in the license terms. You must accept the license terms before you can install the software.
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT VISUAL C++ 2008 RUNTIME LIBRARIES (X86, IA64 AND X64), SERVICE PACK 1
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
• updates,
Print
Press the Page Down key to see more text.
I have read and accept the license terms.
< Back
Install >
Cancel

Figure 4.5 Install vcredist_x86 patch- Accept License Terms

After the Setup Complete interface appears, click **Finish** to complete the installation of vcredist_x86 patch.

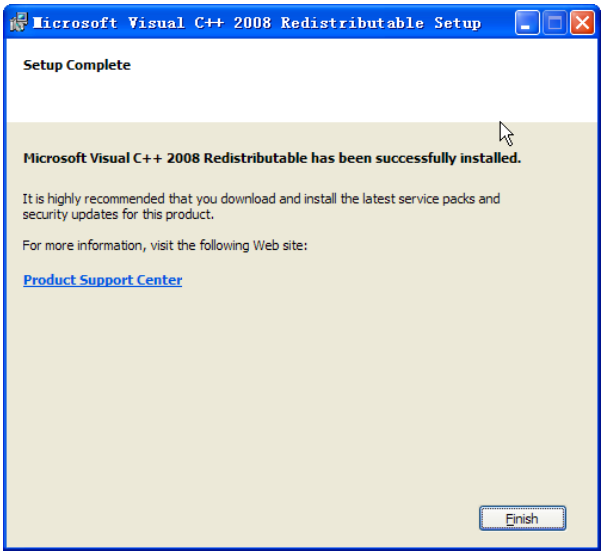

Microsoft Visual C++ 2008 Redistributable Setup
Setup Complete
Microsoft Visual C++ 2008 Redistributable has been successfully installed.
It is highly recommended that you download and install the latest service packs and security updates for this product.
For more information, visit the following Web site:
Product Support Center
Finish

Figure 4.6 Install vcredist_x86 patch- Complete Installation

**Install Card Driver**

If there is compression card installed on your computer, you can click the "Install or Update Driver" option to install the card driver.

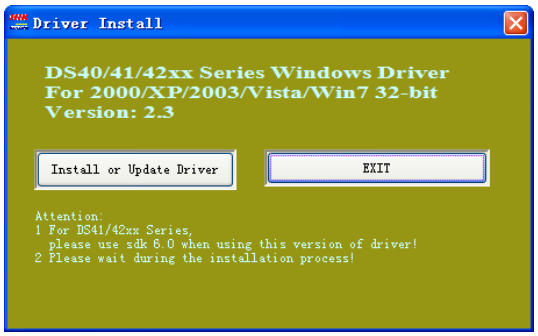



Figure 4.7 Install Card Driver

**Install WinPcap**

Follow the installation prompt to complete the installation of WinPcap. If it has been installed on your computer, you can cancel this step.

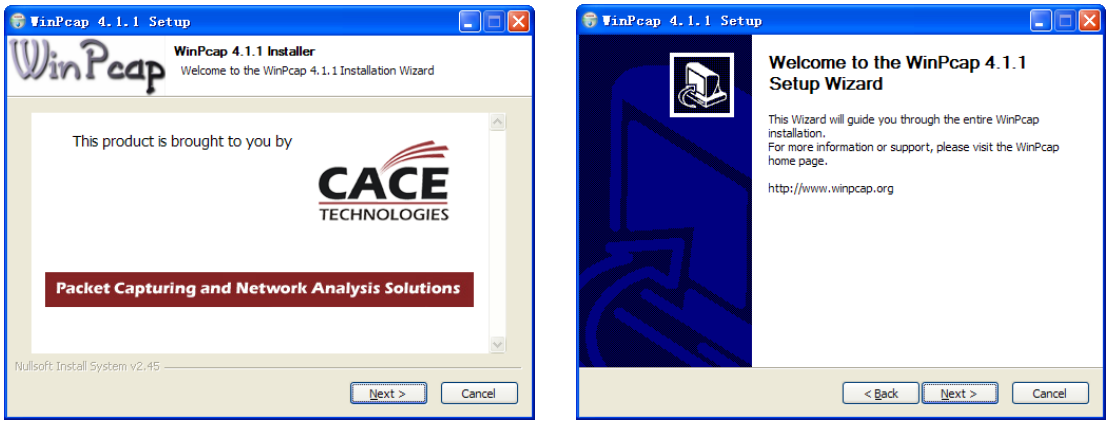

WinPcap 4.1.1 Setup
WinPcap 4.1.1 Installer
Welcome to the WinPcap 4.1.1 Installation Wizard
This product is brought to you by
CACE TECHNOLOGIES
Packet Capturing and Network Analysis Solutions
Nullsoft Install System v2.45
Next >
Cancel
WinPcap 4.1.1 Setup
Welcome to the WinPcap 4.1.1 Setup Wizard
This Wizard will guide you through the entire WinPcap installation.
For more information or support, please visit the WinPcap home page.
http://www.winpcap.org
< Back
Next >
Cancel

Figure 4.8 Install WinPcap

***Note:*** The SADP is used for automatically searching the online device in the local network. If the WinPcap is not installed, the SADP software cannot be used.

After the driver has been installed, continue the following steps.

**Step5:** Select the programs you want to install on your computer, including the User Client, PC NVR Server and Stream Media Server. User can also click **Browse** to change the destination folder for the program files.
Click "Next" to continue.

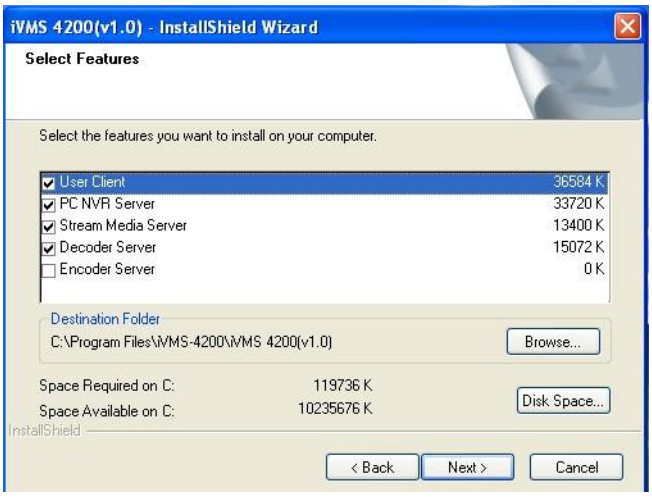



Figure 4.9 Select Installation Programs

**Step6:** In the License Terms interface, click "I accept the terms of the license agreement", and then click "Next" to continue the installation.

iVMS 4200(v1.0) - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Hikvision Software User License Agreement
Please read and understand all the rights and limitations stipulated in this License Agreement for using SDK ,Demo£¬Driver£¬Client software, and any other documentation and software of Hikvision DS-1000KI Keyboard,DS-100XKI RS485 series Keyboard, DS-400xMDI series Matrix decoding card, DS-40xxHCI/HSI/HCSI series compression card, DS-6000HCI series DVS, DS-6100HCI/HCI-ATA series DVS, DS-6101HFI-IP series DVS, DS-7xxxHI series embedded DVR, DS-8000HCI/HFI/ HTI/ HFI-S/HCI-S series DVR, DS-2CDXXX series Camera (hereinafter referred to as j°the Agreementj±). You need to check and accept all the clauses of this Agreement. The software or documentation shall not be downloaded and installed on your computer unless you accept the clauses of this Agreement totally. Once clicking j°acceptj± button, namely, you sign to accept all the clauses of he Agreement. This Agreement is a legal Agreement about the j°software and
I accept the terms of the license agreement
I do not accept the terms of the license agreement
Print
InstallShield
< Back
Next >
Cancel

Figure 4.10 Select Installation Programs

**Step7:** Click "Install" to start installation of the selected programs.

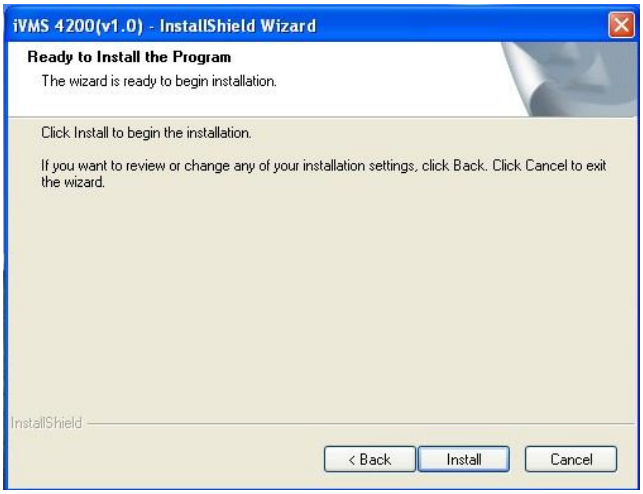

iVMS 4200(v1.0) - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Figure 4.11 Install the Selected Programs

**Step8:** After the installing progress is completed, enter the Setup Type interface to select the desktop shortcut icons for the installed programs. Click "Next" to continue the installation.

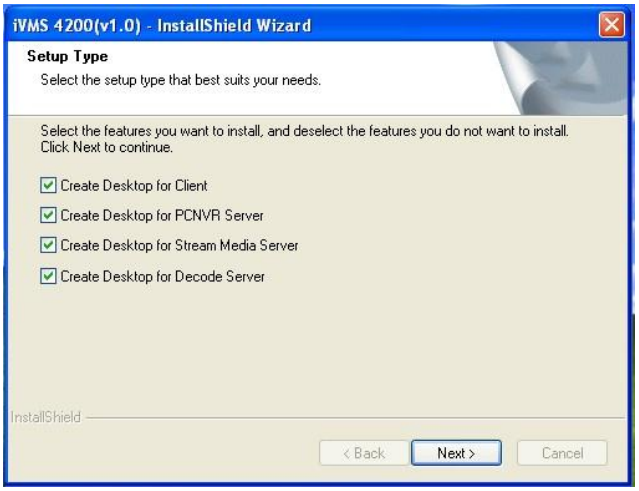

iVMS 4200(v1.0) - InstallShield Wizard
Setup Type
Select the setup type that best suits your needs.
Select the features you want to install, and deselect the features you do not want to install. Click Next to continue.
Create Desktop for Client
Create Desktop for PCNVR Server
Create Desktop for Stream Media Server
Create Desktop for Decode Server
InstallShield
< Back
Next >
Cancel

Figure 4.12 Create Desktop Shortcut Icons

**Step9:** Click “Finish” to complete the installation.

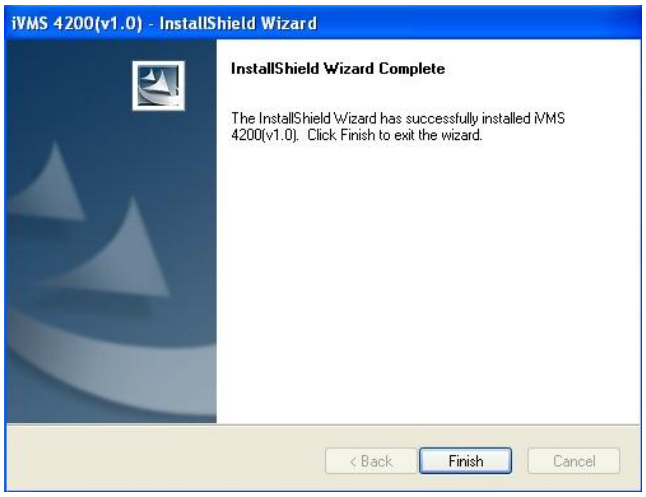

iVMS 4200(v1.0) - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed iVMS 4200(v1.0). Click Finish to exit the wizard.
< Back
Finish
Cancel

Figure 4.13 Finish the Installation

# 4.2 Uninstalling the Software

Click Start→All Programs→4200 client and select “Uninstall iVMS-4200” option to enter the following interface:

iVMS 4200(v1.0) - InstallShield Wizard
Welcome
Modify, repair, or remove the program.
Welcome to the iVMS 4200(v1.0) Setup Maintenance program. This program lets you modify the current installation. Click one of the options below.
Modify
Select new program features to add or select currently installed features to remove.
Repair
Reinstall all program features installed by the previous setup.
Remove
Remove all installed features.
InstallShield
< Back
Next >
Cancel

Figure 4.14 Uninstall the Programs

Select “Remove” to remove all installed features and then click “Next” to uninstall iVMS-4200 according to the prompt.

# 4.3 Accessing to DS-6600

Click “Start”→”All Programs”→“iVMS-4200 Client” to start the client software. After successful login, user can enter the following main interface of the client software.

# 4.3.1 Adding Device

***Steps:***

1. Click **Control Panel>Device Management** to enter the Device Management page:

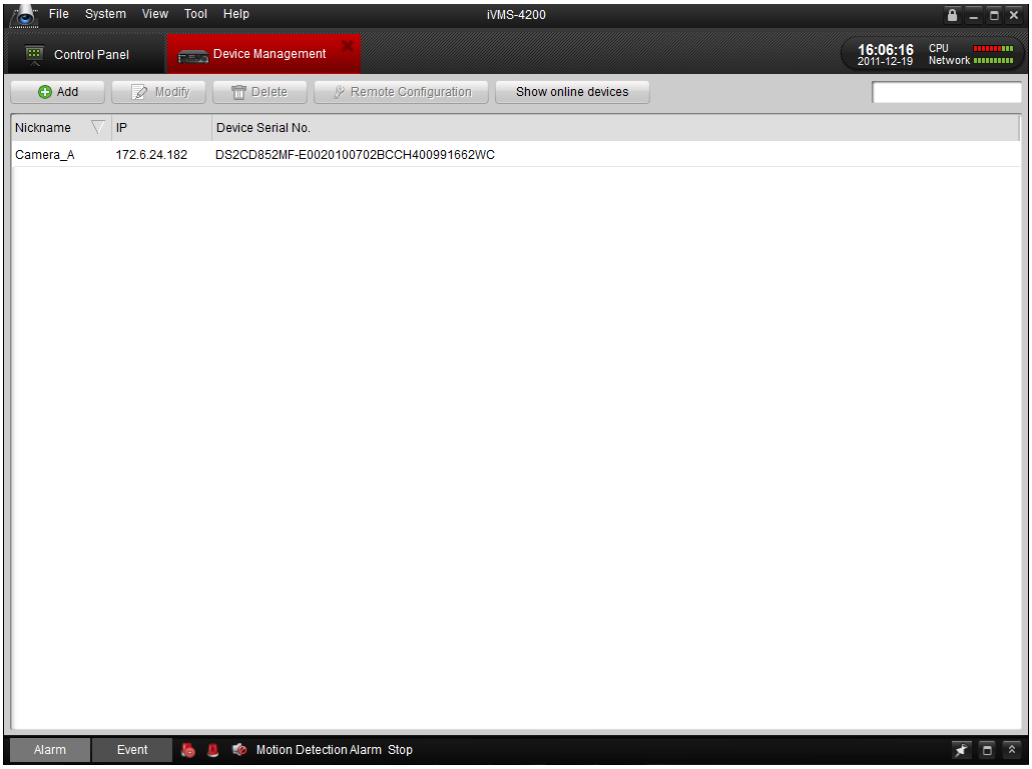



Figure 4.15 Device Management Page

2. Click the **Add** button to enter the Add Device interface:

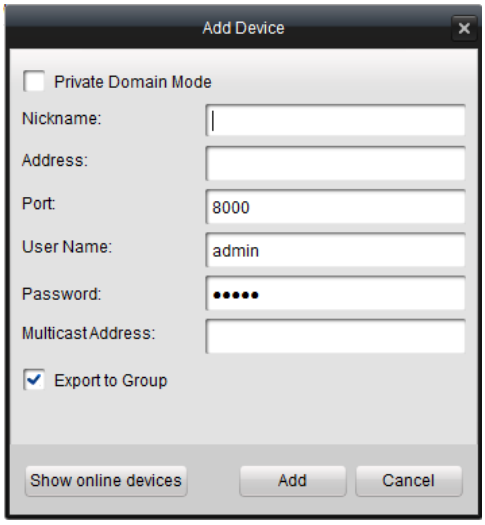



Figure 4.16 Add Device

3. Edit a nickname for the device and then input the IP address, port number (default: 8000), login User Name (default: *admin*) and Password (default: *12345*) of the device.

***Note:*** If you check the Private Domain Mode checkbox, you should input the DNS address and Device Mark (the

device identifier) as well.

4. Click **Add** to add the device.

You can also click the **Show online devices** icon to search the online devices. All the online devices will show in the list. Click to select the online device you want to add, and then click **Select Device** to add the device.

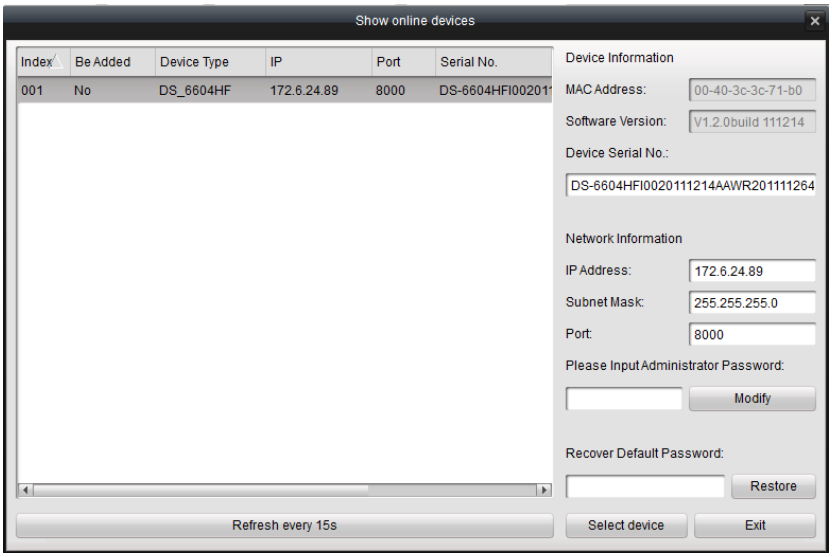



Figure 4.17 Search Online Device by SADP

5. The successfully added device (s) will be displayed on the device list.

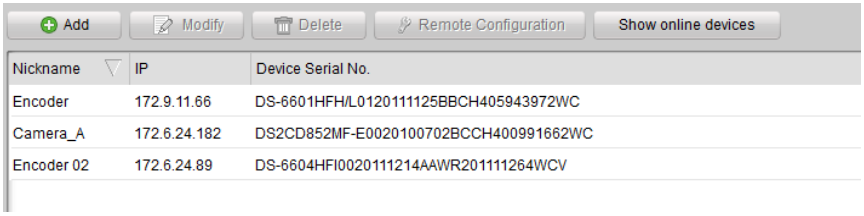



Figure 4.18 List of Added Devices

## 4.3.2 Starting Live View

Click **Control Panel > Main View** to enter the Live View page:

Figure 4.19 Start Live View

You can click the buttons on the toolbar to operate in the live view mode, e.g., capture picture, start/stop recording, two-way audio, PTZ control (with PTZ camera connected to the encoder), digital zoom, open/close audio, play back video files, etc.

***Note:*** Please refer to the *User Manual of iVMS-4200 Client Software* for the detailed information.

# Chapter 5 Access to DS-6600 by WEB Browser

The DS-6600 can also be accessed by WEB Browser for configuration and operation. The supported WEB browsers include: Internet Explorer 6/7/8/9, Firefox 3.5 and above, Chrome 8 and above, Safari 5.0.2 and above, Windows XP SP1 and above (32-bit).

***Before you start:***

- Before access, user needs to configure the network settings of device according to *Chapter 3*.
- Connect the device to the LAN, and prepare a PC connected to the same LAN with the device.
- The factory default username of the device is *admin* and the password is *12345*.
- The factory default IP address of the device is *192.0.0.64*.

## 5.1 Installing Web Components

***Steps:***

1. Open WEB browser, input the IP address of DS-6600 (e.g., http://192.0.0.64) and then press the **Enter** key on PC. The system then will display the login interface:

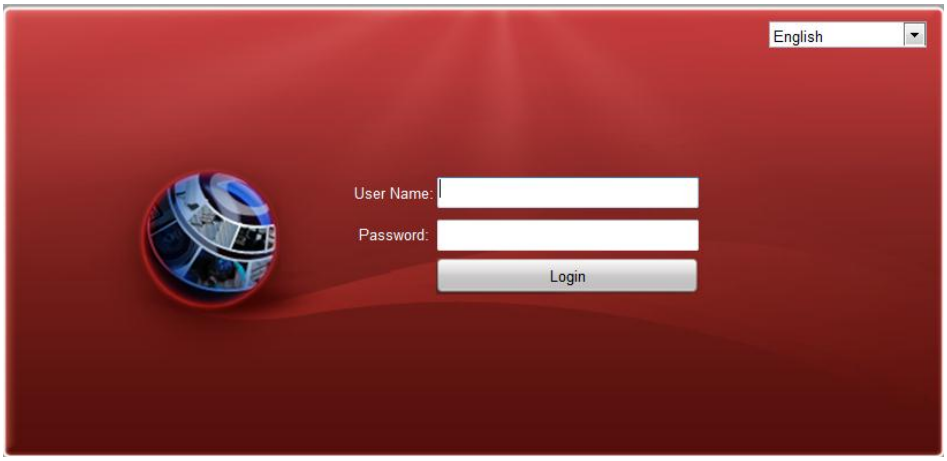



Figure 5.1 Login Page

Input the user name (default: admin) and password (default: 12345) to log into the system.

2. On the main page of DS-6600, you need to download and install the plug-in.
   (1) Click on the live view panel by following the hints on the screen.

Figure 5.2 Download and Install Plug-in

(2) Click **Run** or **Save** on the pop-up warning message box.

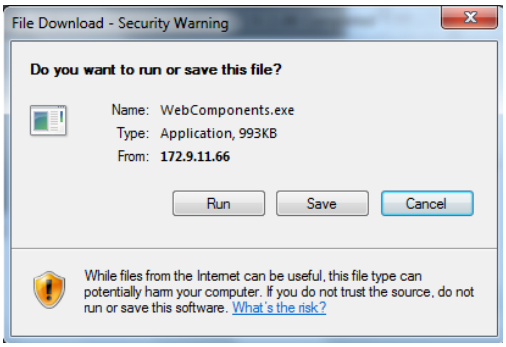

File Download - Security Warning
Do you want to run or save this file?
Name: WebComponents.exe
Type: Application, 993KB
From: 172.9.11.66
Run
Save
Cancel
While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not run or save this software. What's the risk?

Figure 5.3 Run WebComponents

(3) Click **Next** on the pop-up Setup dialog box.

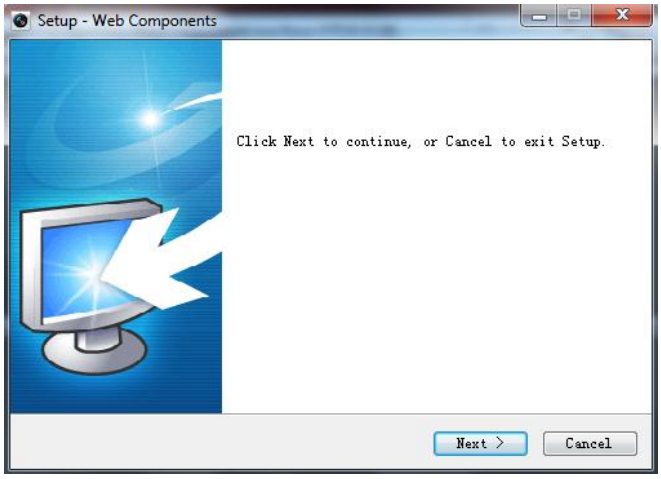



Figure 5.4 Click Next

(4) When the installation completes, click **Finish** to finish the installation of Web Components.

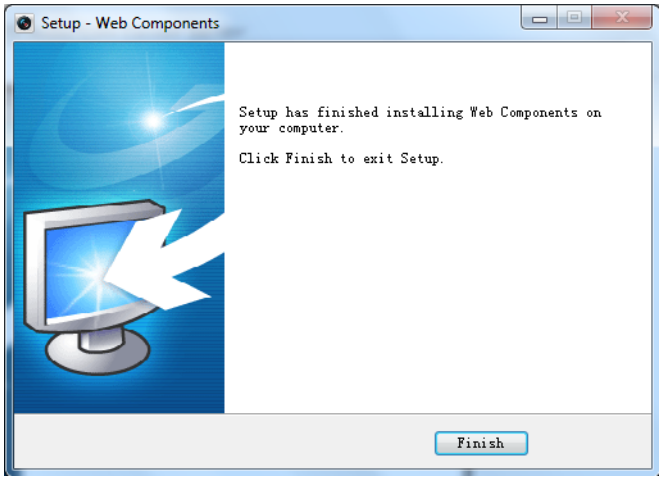



Figure 5.5 Finish the Setup

# 5.2 Main Page

After successful login, you will enter the main page automatically.

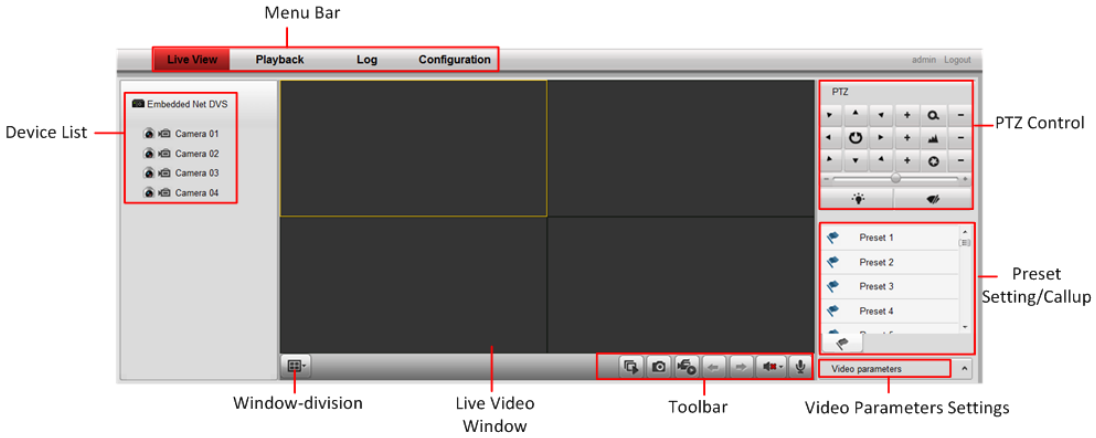



Figure 5.6 Main Page

Description of the live view page:

**Menu Bar:** Enter the Live View, Playback, Log and Configuration page respectively.

**Device List:** Display the connected encoder and its channels.

**Window-division**: 1/4-division display mode.

**Live Video Window:** Display the live video of the current camera.

**Toolbar:** Realize functions in live view mode, e.g., live view, capture, recording, audio on/off, two-way audio, etc.

**PTZ Control:** Realize PTZ control of the camera (supports PTZ function), and the lighter and wiper control.

**Preset Setting/Callup:** Set and call the preset for the camera (supports PTZ function).

**Video Parameters Settings:** Configure the brightness, contrast, hue and saturation of the live video.

# Chapter 6 Live View

Live view shows you the video image getting from the connected camera in real time. After successful login, the system will enter the live view page automatically.

## 6.1 Starting Live View

*Steps:*

1. In the live view window, select a playing window by clicking the mouse.
2. Double click a camera from the device list to start the live view.

Figure 6.1 Start Live View

3. You can click the button on the toolbar to start the live view of all cameras on the device list.

Refer to the following table for the description of buttons on the live view window:

Table 6.1 Description of Toolbar

| Icon | Description |
|---|---|
| | Select the window-division mode to 1×1 or 2×2. |
| / | Star/Stop live view |
| | Capture pictures in live view mode |
| / | Manually start/stop recording |
| | Previous page |
| | Next page |
| / | Audio on/off |
| / | Start/Stop two-way audio |

***Note:*** Before using two-way audio function or recording with audio, please select the **Stream Type** to **Video & Audio** on *Section 8.2 Configuring Video Settings.*

**Full-screen Mode**

You can double click on the live video to switch to the full-screen view mode. To switch back to the normal mode, double click on the live video again.

Please refer to the following section for more information:

1. Capturing pictures on *Section 6.2 Capturing Picture*. .
2. Configuring recording on *Chapter 9 Record Settings*.
3. Setting the image quality of live view on *Section 7.1 Local Configuration*.
4. Setting the saving path for the recorded video files and captured pictures on *Section 7.1 Local Configuration*..
5. Setting the OSD text on live video on *Section 8.1 Configuring OSD Settings*. .

# 6.2 Capturing Picture

In live view mode, click the button on the toolbar to capture the live pictures.

When the picture is captured, the following pop-up message box will appear at the lower right corner.

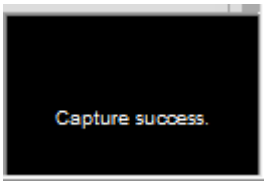



Figure 6.2 Capture Picture

***Note*:**

1. The saving path for the captured pictures can be set at the **Configuration > Local Configuration** page.
2. The image is saved as a JPEG file on your computer.

# 6.4 Operating PTZ Control

***Before you start:***

1. Make sure the encoder is connected with the camera/dome which supports PTZ function. Connect the *R+* and *R−* terminals of the pan/tilt unit or speed dome to RS-485 T+ and RS-485 T- terminals of the DS-6600 respectively.
2. The baud rate, PTZ control and address configured in the **RS-485 Settings** interface (**Remote Configuration > Serial Port Settings > 485 Serial Port**), as shown in Figure 6.3, must be the same with the parameters of the connected pan/tilt unit or speed dome.

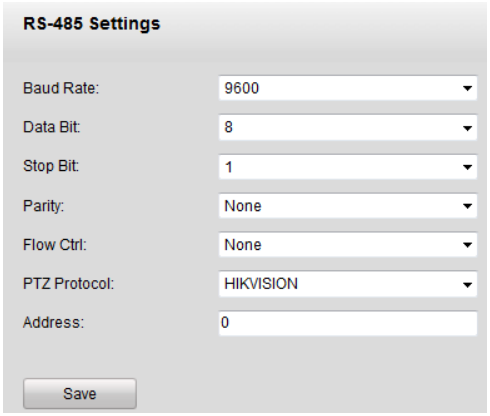



Figure 6.3 RS-485 Settings

## 6.4.1 Operating PTZ Control

In live view mode, you are allowed to use the PTZ control buttons to realize pan/tilt/zoom control of the camera lens.

There are 8 directional buttons (up, down, left, right, upper left, upper right, bottom left, bottom right) on the display window when the mouse is located in the relative positions.

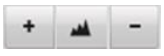
Click on the directional buttons to control the pan/tilt movement.

Figure 6.4 PTZ Control Panel

Click the zoom/iris/focus buttons to realize lens control.

Refer to the following table for description of PTZ control buttons:

Table 6.1 Description of PTZ Control Buttons

| Button | Description |
|---|---|
| | Zoom in/out |
|  | Focus near/far |
| | Iris open/close |
| | Light |
| | Wiper |
| | Adjust speed of pan/tilt movement |

# 6.4.2 Setting / Calling A Preset

**Setting a Preset:**

1. In live view mode, select a preset number from the preset list.

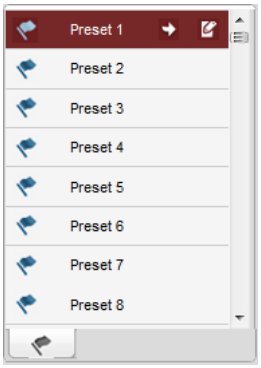



Figure 6.5 Set a Preset

2. Use the PTZ control buttons to move the lens in the desired position. You can use any of the following commands:
   - Pan the camera to the right or left.
   - Tilt the camera up or down.
   - Zoom in or out.
   - Refocus the lens.
3. Click the icon to finish the setting of current preset.

***Note*:** Up to 256 presets can be configured.

**Calling a Preset:**

This feature enables the camera to point to a specified preset scene when an event takes place.

For the pre-defined preset, you can call it at any time to the desired preset scene.

In live view mode, select a predefined preset from the list and click the icon to call a preset.

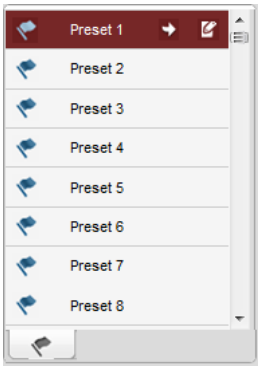



Figure 6.6 Call a Preset

**Linking to Alarm:**

The preset can also be used to link to the alarm input when there is alarm event occurring.

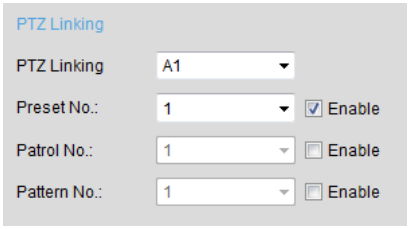



Figure 6.7 PTZ Linking

Please refer to *Chapter 8.3 Configuring and Handling Alarms* for the PTZ Linking settings (Remote Configuration>Alarm Settings>Alarm Input>Linking Method).

# 6.5 Configuring Video Parameters

***Purpose:***

You can configure the OSD (On-screen Display) settings for the camera, including date /time, camera name, etc.

***Steps:***

1. In the live view interface, click the Video parameters button on the bottom right corner to spread the Video Parameters Setting interface:

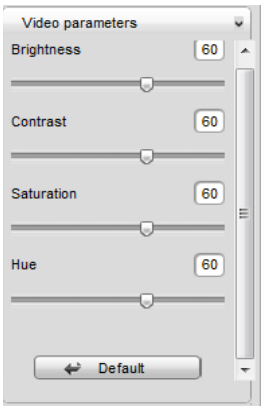



Figure 6.8 Video Parameters Settings

2. Move the slider to adjust the brightness, contrast, saturation and hue.

   ***Note*:** The range of adjustment is 0 to 100; the default setting is 60.

   You can also click the Default button to restore the default settings.

# Chapter 7 Device Configuration

## 7.1 Local Configuration

Click **Configuration > Local Configuration** to enter the Local Configuration interface.

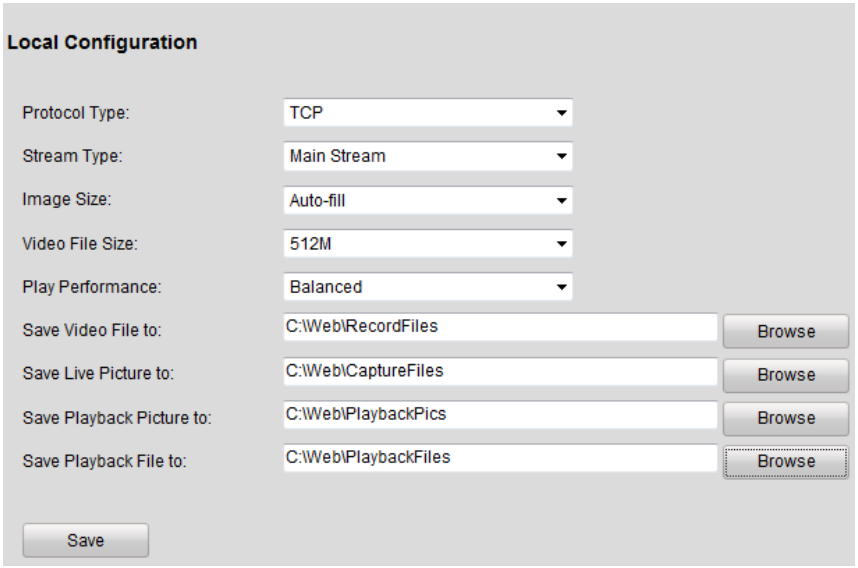



Figure 7.1 Local Configuration

Configure the following settings:

**Protocol Type:** Set the protocol type of stream transmission to TCP or UDP.

- **UDP:** provides more real-time audio and video streams.
- **TCP:** ensures complete deliver of streaming data and better video quality, yet its real-time effect is not so good.

**Stream Type:** Select the stream type to main stream or sub stream used for live view by Web browser. Please refer to *Section 8.2 Configuring Video Settings* for the parameters settings of the main stream and sub stream respectively.

**Image Size:** Select the window-division view mode to 4:3, 16:9 or Auto-fill.

**Video File Size:** Select the size of packed video files during manual recording to 256M, 512M or 1G.

**Play Performance:** Set the live viewing performance to Least Delay, Balanced (delay and fluency) or Best Fluency.

**Save Video File to:** Set the saving path for the manually recorded video files.

**Save Live Pictures to:** Set the saving path for the manually captured pictures in live view mode.

**Save Playback Picture to:** Set the saving path for the captured pictures in playback mode.

**Save Playback File to:** Set the saving path for the clipped video files in playback mode.

***Note*:** You can click the **Browse** button to change the directory for saving the video files and pictures.

# 7.2 Configuring Time Settings

***Steps:***

1. Click **Remote Configuration > Device Parameters > Time Settings** to enter the Time Settings interface:

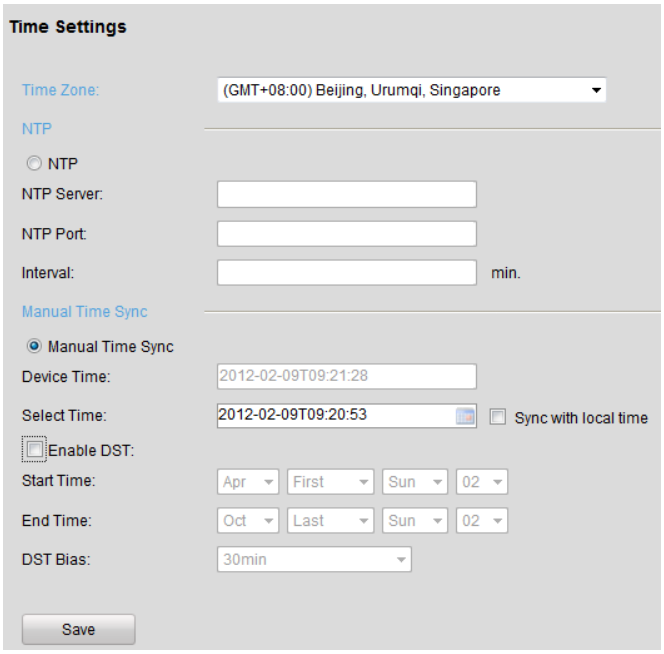



Figure 7.2 Time Settings

2. Select the Time Zone.

Select the Time Zone that is closest to the device's location from the drop-down menu.

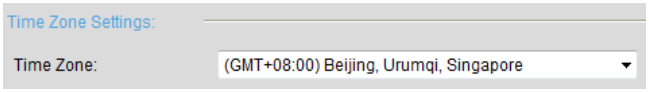



Figure 7.3 Time Zone Settings

3. Configure the time synchronization by NTP server or by manually.

- **Configuring Time Sync by NTP Server**

A Network Time Protocol (NTP) Server can be configured on your device to ensure the accuracy of system date/time.

If the device is connected to a Dynamic Host Configuration Protocol (DHCP) network that has time server properties configured, the camera will synchronize automatically with the time server.

Enable the **NTP** function by checking the checkbox, and configure the following settings:

**NTP Server:** IP address of NTP server.

**NTP Port:** Port of NTP server.

**Interval:** The time interval between the two synchronizing actions with NTP server. It can be set from 1 to 10080 minutes.

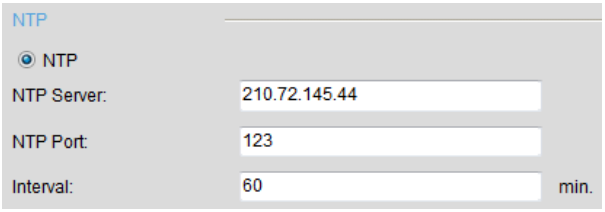



Figure 7.4 Time Sync by NTP Server

***Note*:** If the device is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the device is set up in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.

- Configuring Time Synchronization by Manually

Enable the **Manual Time Sync** function and then click the icon to set the system time from the pop-up calendar. You can check the checkbox of **Snyc with local time** to synchronize the time with the local PC.

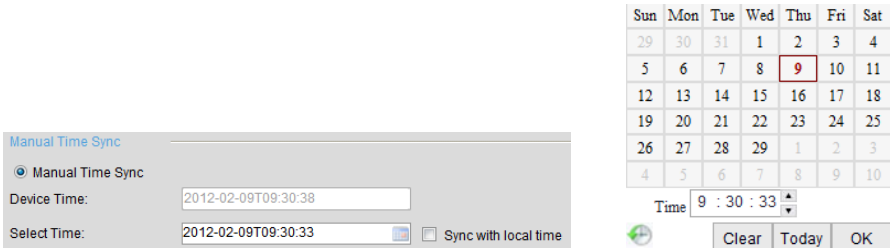

Manual Time Sync
Manual Time Sync
Device Time:
2012-02-09T09:30:38
Select Time:
2012-02-09T09:30:33
Sync with local time
Sun Mon Tue Wed Thu Fri Sat
29 30 31 1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 1 2 3
4 5 6 7 8 9 10
Time 9 : 30 : 33
Clear
Today
OK

Figure 7.5 Time Sync by Manually

4. Configure DST settings if needed.

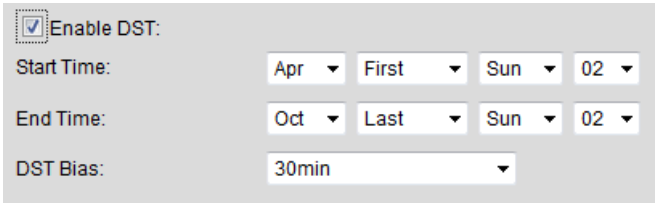



Figure 7.6 Set DST

(1) Check the checkbox before the **Enable DST**.

(2) Set the start tine and end time of DST period. The end time must be later than the start time. When the DST period ends, the system will reverts to the standard local time.

(3) Set the DST bias to 30min, 60min, 90min or 120min.

5. Click the **Save** button to save the settings.

# 7.3 Network Settings

## 7.3.1 Configuring Basic Settings

Network settings must be properly configured before you operate device over network.

***Steps:***

1. Click the **Remote Configuration** > **Network Settings** > **Basic Settings** to enter the Basic Network Settings interface:

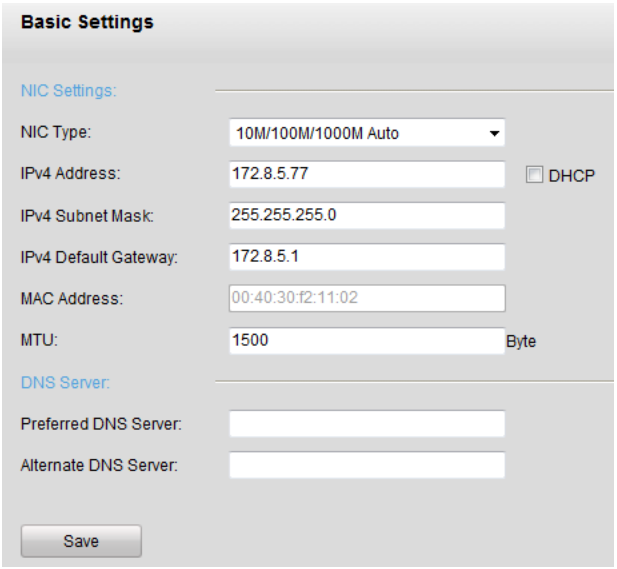



Figure 7.7 Basic Network Settings

2. Configure the NIC settings, including the NIC Type, IPv4 Address, IPv4 Subnet Mask, IPv4 Default Gateway, and MTU settings.

***Note*:** The valid value range of MTU is 500 ~ 9676.

3. If the DHCP server is available, you can click the checkbox of DHCP to automatically obtain an IP address and other network settings from that server.
4. If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the Preferred DNS Server and Alternate DNS Sever here.

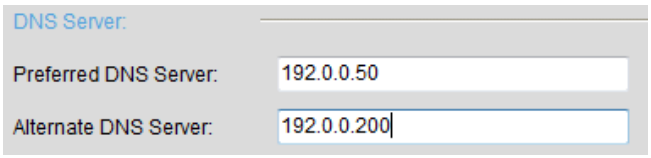



Figure 7.8 DNS Server Settings

5. Click the **Save** button to save the above settings.

## 7.3.2 Configuring PPPoE Settings

Your device also allows access by Point-to-Point Protocol over Ethernet (PPPoE).

***Steps:***

1. Click the **Remote Configuration** > **Network Settings** > **PPPoE Settings** to enter the PPPoE Settings interface:

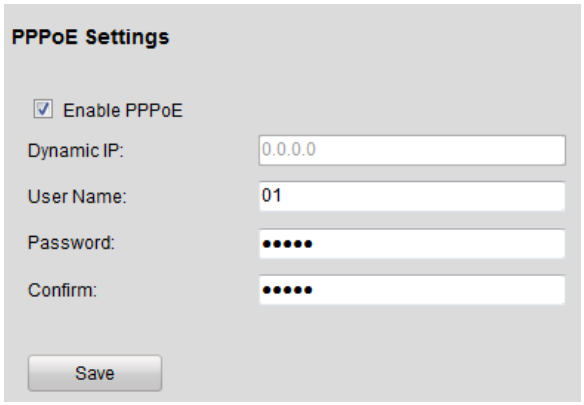



Figure 7.9 PPPoE Settings

2. Check the **PPPoE** checkbox to enable this feature.
3. Enter **User Name**, **Password**, and **Confirm Password** for PPPoE access.

***Note:*** The User Name and Password should be assigned by your ISP.

4. Click the **Save** button to save and exit the interface.

## 7.3.3 Configuring DDNS Settings

If your device is set to use PPPoE as its default network connection, you may set Dynamic DNS (DDNS) to be used for network access.

Prior registration with your DDNS Provider is required before configuring the system to use DDNS.

***Steps:***

1. Click the **Remote Configuration** > **Network Settings** > **DDNS Settings** to enter the DDNS Settings interface:

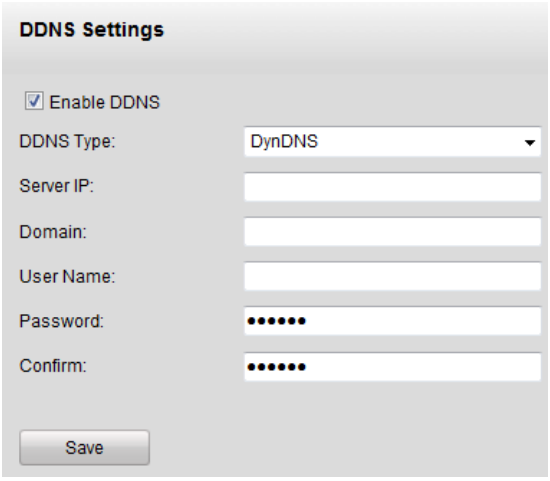



Figure 7.10 DDNS Settings

2. Check the **Enable DDNS** checkbox to enable this feature.
3. Select **DDNS Type**. Four different DDNS types are selectable: IPServer, DynDNS, PeanutHull and NO-IP.
   - **DynDNS:**

   (1) Enter **Server Address** for DynDNS (e.g. members.dyndns.org).

   (2) In the **Device Domain Name** text field, enter the domain obtained from the DynDNS website.

(3) Enter the **User Name** and **Password** registered in the DynDNS website.

(4) Click **Save** to save the settings.

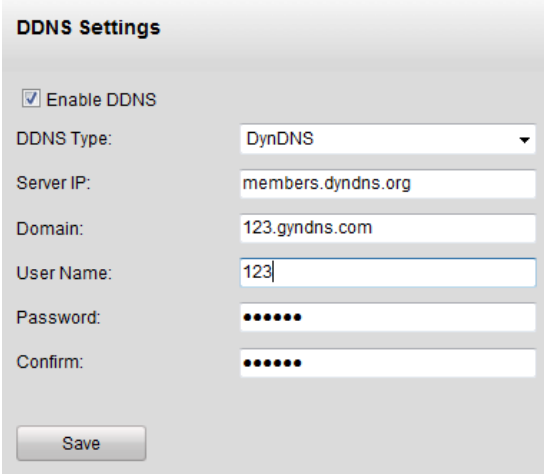



Figure 7.11 DynDNS Settings

- **IPServer:**

(1) Enter Server Address for IPServer.

(2) Click **Save** to save the settings.

***Note:*** For the IP Server, You have to apply a static IP, subnet mask, gateway and primary DNS from the ISP. The **Server IP** should be entered with the static IP address of the PC that runs IPServer software.

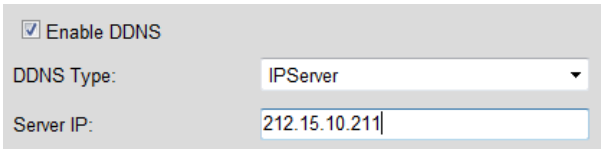



Figure 7.12 IPServer Settings

- **PeanutHull:**

(1) Enter User Name and Password obtained from the PeanutHull website.

(2) Click **Save** to save the settings.

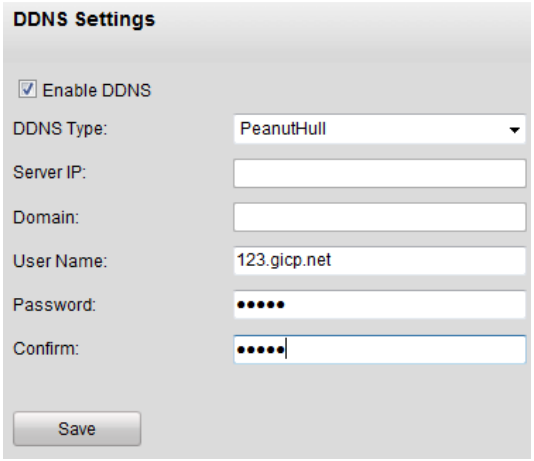



Figure 7.13 PeanutHull Settings

- **NO-IP:**

(1) Enter the Server Address for NO-IP.

(2) In the **Domain Name** text field, enter the domain obtained from the NO-IP website

(www.no-ip.com).

(3) Enter the **User Name** and **Password** registered on the NO-IP website.

(4) Click **Save** to save the settings.

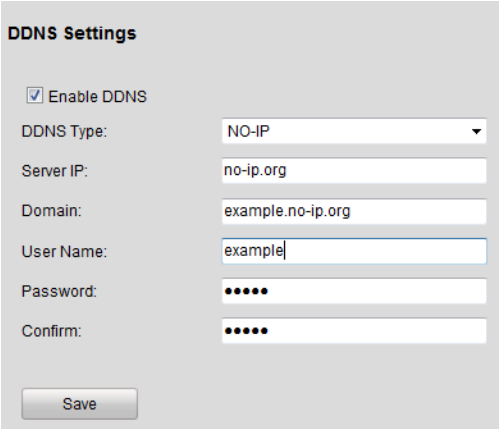



Figure 7.14 NO-IP Settings

# 7.3.4 Configuring Email Settings

***Purpose:***

The system can be configured to send an Email notification to all designated receivers if an alarm event is detected, e.g., motion detection event, video loss, tamper-proof, etc.

***Before you start***

1. Before configuring the Email settings, the device must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notification.
2. Please configure the DNS Server settings under **Remote Settings>Network Settings>Basic Settings** before using the Email function.

***Steps:***

1. Enter the Basic Network Settings (**Remote Configuration > Network Settings > Basic Settings)** to set the IPv4 Address, IPv4 Subnet Mask, IPv4 Default Gateway and the Preferred DNS Server.
2. Click the **Remote Configuration > Network Settings > Email Settings** to enter the Email Settings interface:

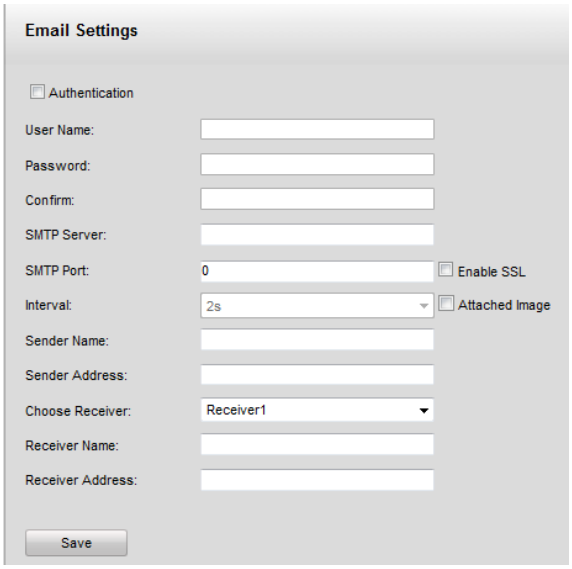



Figure 7.15 Email Settings (1)

3. Configure the following Email settings:

**Authentication** (optional): If your mail server requires authentication, check this checkbox to use authentication to log in to this server and enter the login User Name and Password.

**SMTP Server:** The SMTP Server IP address or host name (e.g., smtp.263xmail.com).

**SMTP Port:** The SMTP port. The default TCP/IP port used for SMTP is 25.

**Enable SSL**: Click the checkbox to enable SSL if required by the SMTP server.

**Interval:** The interval refers to the time between two actions of sending attached pictures.

**Attached Image**: Check the checkbox of **Attached Image** if you want to send email with attached alarm images.

**Sender Name:** The name of sender.

**Sender Address:** The Email address of sender.

**Choose Receiver:** Select the receiver to which the Email is sent. Up to 3 receivers can be configured.

**Receiver Name:** The name of user to be notified.

**Receiver Address:** The Email address of user to be notified.

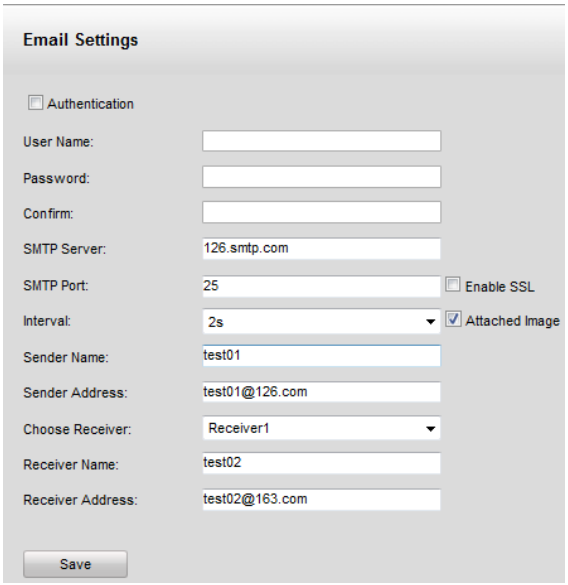



Figure 7.16 Email Settings (2)

4. Click **Save** to save the Email settings.

Please refer to the following sections for more information:

- Configuring alarm linking method with **Send Email** on *Section 8.3.1 Configuring Motion Detection*.
- Configuring alarm linking method with **Send Email** on *Section 8.3.2 Configuring External Alarm Input.*
- Configuring alarm linking method with **Send Email** on *Section 8.3.3 Configuring Video Loss Alarm.*
- Configuring alarm linking method with **Send Email** on *Section 8.3.4 Configuring Tamper-proof Alarm.*
- Configuring alarm linking method with **Send Email** on *Section 8.3.5 Handling Exception.*

# 7.3.5 Adding Network Disk

For DS-6600HCI/HFI models, you should configure the network disk before operating the recording, playback or log searching. For other models with SATA disks connected, the configuration of network disk is selectable.

***Before you start:***

1. The network storage device is available within the network and is properly connected.
2. The network storage device is configured with NAS or IP SAN mode (please refer to the User Manual of IP SAN/NAS).

***Steps:***

1. Click **Remote Configuration** > **Network Settings** >**NetHDD Settings** to enter the NetHDD Settings interface.

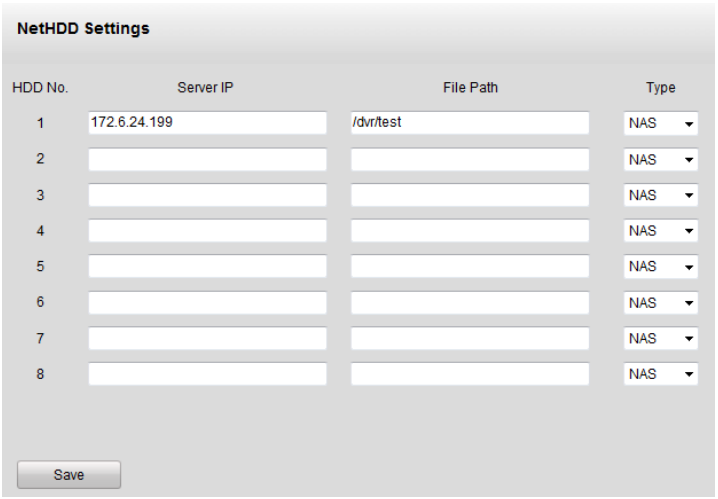



Figure 7.17 Network Disk Settings

2. Enter the IP address of the Network Storage System and File Path in the text filed.
3. Select the type of Network Storage System to IP SAN or NAS.

   **NAS Mode:** Enter the IP address of the storage device, and the default file path is */dvr/share*, in which the *share* name is user-defined during creating the DVR of the network storage.

   **IP SAN mode:** Enter the IP address of the storage device, and the default file path is *iqn.2004-05.storos.t-service ID*, in which the *service ID* is user-defined during creating the iSCSI volume of the network storage.
4. Click the **Save** button to add the configured network disk.
5. Initialize the added network disk.

(1) Click **Remote Configuration** > **HDD Management** to enter the HDD settings menu, on which you can view the capacity, free space, status, type and property of the added network disk.

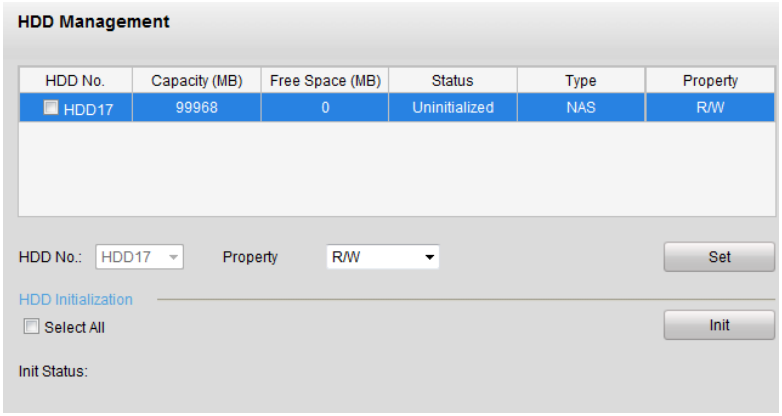



Figure 7.18 Initial Disk

(2) If the status of the network disk is **Uninitialized**, select the disk from the list by checking the checkbox and click the **Init** button to start initializing the disk.

(3) When the initialization is complete, the status of disk will become **Normal.**

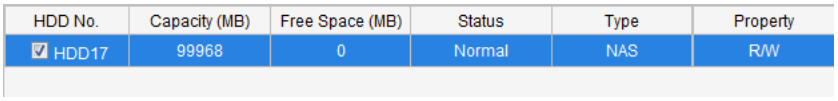



Figure 7.19 HDD Status-Normal

6. Set the property of the added network disk.
   Select the HDD No., and select the property from the drop-down menu to R/W, Read-only or Redundancy.

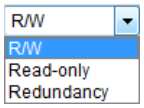



Figure 7.20 Set HDD Property

***Note*:**

1. Please refer to the User Manual of IP SAN/NAS for the creation of File Path in the network management.
2. Up to 8 NAS disks or IP SAN disk can be connected to the DS-6600.

# 7.3.6 Configuring SNMP Settings

Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks.

***Steps:***

1. Click **Remote Configuration > Network Settings >SNMP Settings** to enter the SNMP Settings interface.
2. Select the NIC port (default: 161).
3. When the SNMPv1 or SNMP v2c is enabled (or both enabled), you can configure the read SNMP community (default: public), write SNMP community (default: private), tap address (default: empty) and trap port (default: 162).

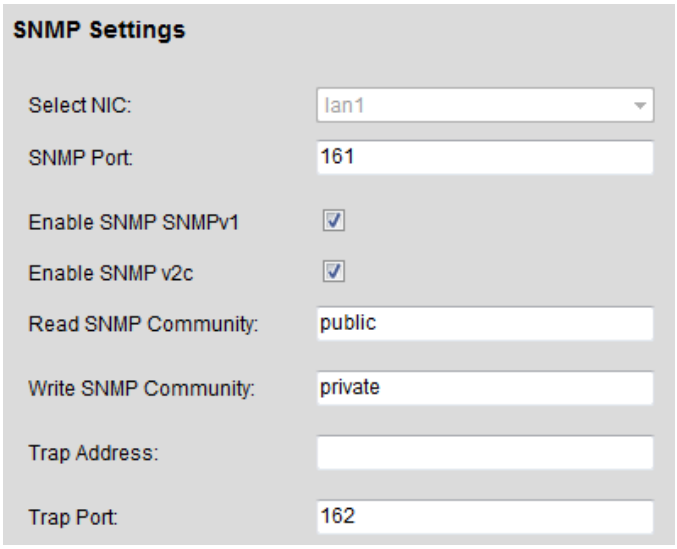



Figure 7.21 SNMP Settings (1)

4. When the SNMPv3 is enabled, you can configure the read username (default: public).

   ***Note*:** By default settings, the SNMPv1, SNMP v2c and SNMPv3 are disabled.

5. Select the security level to “no auth, no priv”, “auth, no priv”, “no auth, priv” or “auth, priv”.

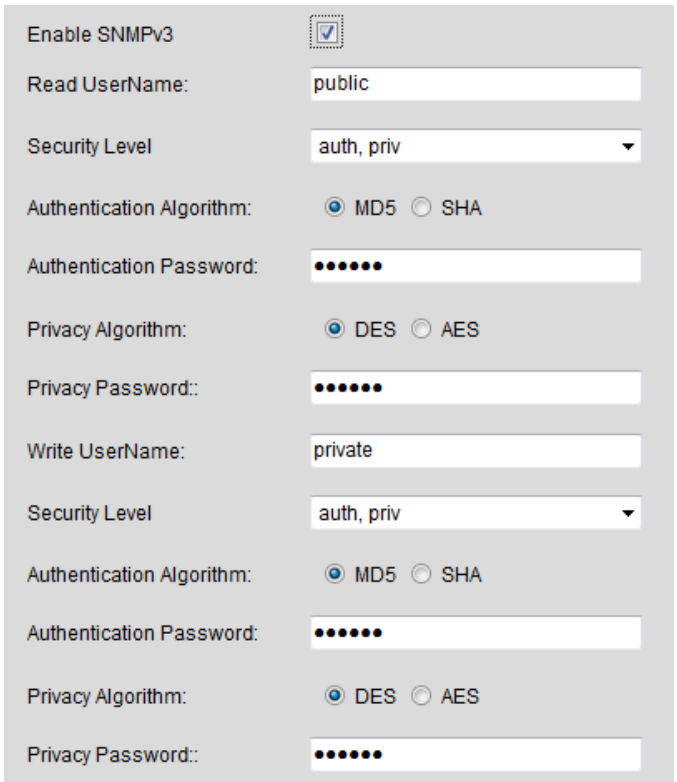



Figure 7.22 SNMP Settings (2)

6. (1) When the security level is set to “**auth, priv”**, you can configure the Authentication Algorithm and Privacy Algorithm parameters.

   (2) When the security level is set to “**no auth, no priv**”, you cannot configure the Authentication Algorithm

and Privacy Algorithm parameters.

7. Click **Save** to save the above settings.

# Chapter 8 Camera Settings

## 8.1 Configuring OSD Settings

### 8.1.1 Configuring Display Settings

***Purpose:***

You can customize the camera name and time on the screen.

***Steps:***

1. Click the **Remote Configuration >Camera Settings > Display Settings** to enter the Display Settings interface:

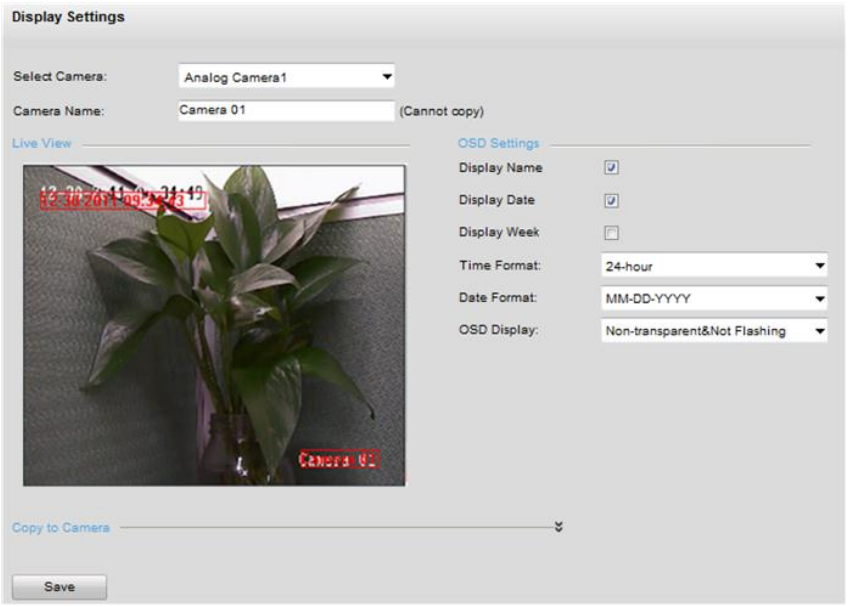



Figure 8.1 Display Settings

2. Select the camera from the drop-down list.
3. Edit the camera name in the text field of Camera Name.

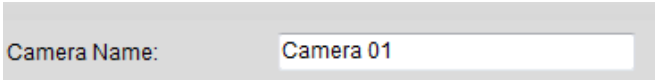



Figure 8.2 Edit Camera Name

4. Select the display of camera name, date or week by checking the checkboxes if required.
5. Set the time format, date format and OSD display mode by selecting option from the drop-down list.
6. Configure the OSD size to large, middle or small.
7. On the preview image, you can adjust the OSD location on the screen by moving the text frame.

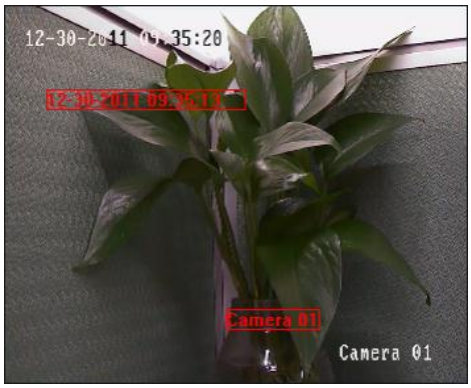



Figure 8.3 Adjust OSD Location

8. If you want to copy the display settings of the current camera to other cameras, spread the **Copy to Camera** panel and select the camera(s) to copy, or click **Select All** to select all cameras.

Figure 8.4 Copy to Camera

9. Click **Save** to validate the above settings.

## 8.1.2 Configuring Text Overlay

***Steps:***

1. Click the **Remote Configuration >Camera Settings > Text Overlay Settings** to enter the Text Overlay Settings interface.
2. Select the camera from the drop-down list.
3. Edit the user-defined text content.
   Click the checkbox in the text box below and then input the characters.
4. On the preview image, you can adjust the Text location on the screen by moving the text frame.

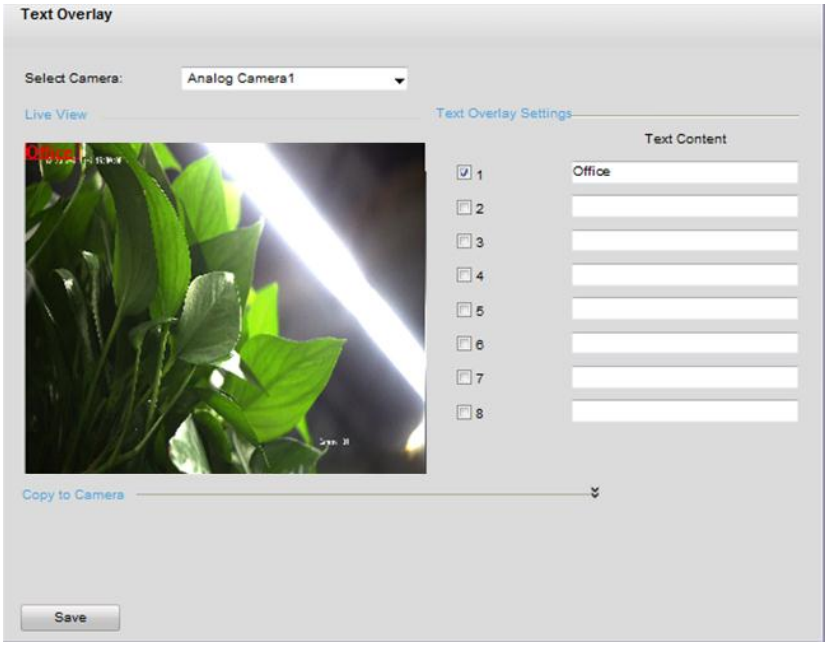



Figure 8.5 Text Overlay Settings

5. If you want to copy the text overlay settings of the current camera to other cameras, spread the **Copy to Camera** panel and select the camera(s) to copy, or click **Select All** to select all cameras.

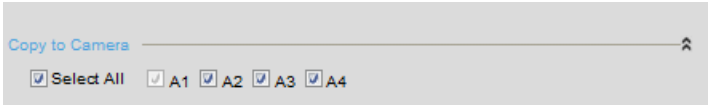



Figure 8.6 Text Overlay Settings

6. Click **Save** to validate the above settings.

# 8.2 Configuring Video Settings

***Steps:***

1. Click **Remote Configuration** > **Camera Settings** >**Video Settings** to enter the Video Settings interface:

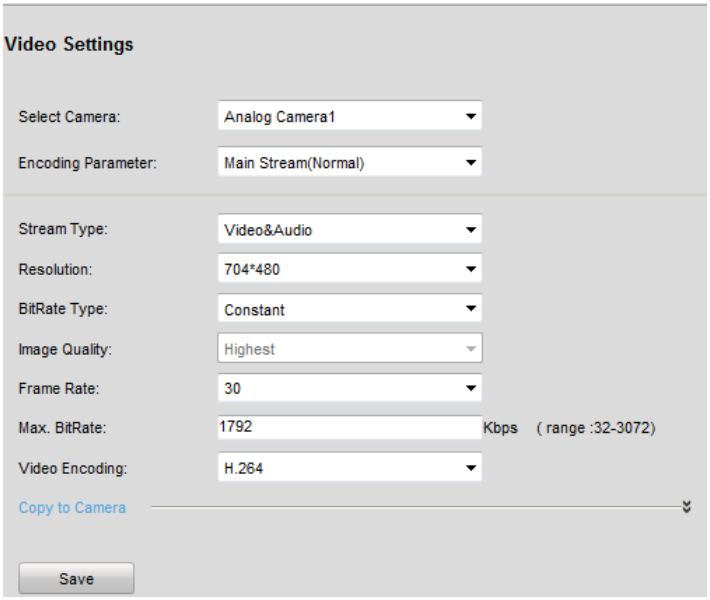



Figure 8.7 Video Settings

2. Select the camera from the drop-down list to configure.
3. Select the **Encoding Parameter** of the camera to Main Stream (Normal), Main Stream (Event) or Sub Stream.

   The main stream is usually for recording and live viewing with good bandwidth, and the sub stream can be used for live viewing when the bandwidth is low. Refer to the *Chapter 7.1 Local Configuration* on changing the main stream to sub stream for live viewing.
4. You can customize the following parameters for the selected Main Stream or Sub Stream:

   **Stream Type**: Select the stream type to video stream, or video & audio composite stream. The audio signal will be recorded only when the **Stream Type** is **Video & Audio**.

   **Resolution:** Select the resolution of the video input.

   **BitRate Type:** Select the bitrate type to constant or variable.

   **Image Quality:** When bitrate type is selected to **Constant**, 6 levels of image quality can be configured.

   **Frame Rate:** Set the frame rate to 1~25 fps.

   The frame rate used to describe the frequency at which a video stream is updated is measured in frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.

   **Max. BitRate:** Set the Max. bitrate to 32~3072 Kbps.

   **Video Encoding:** Select the video encoding standard to H.264.
5. If you want to copy the display settings of the current camera to other cameras, spread the **Copy to Camera** panel and select the camera(s) to copy, or click **Select All** to select all cameras.

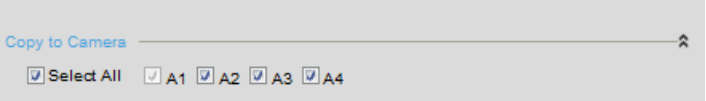



Figure 8.8 Copy to Camera

7. Click **Save** to save the above settings.

# 8.3 Configuring and Handling Alarms

***Purpose:***

This section explains how to configure the network camera to respond to alarm events, including Motion Detection, External Alarm Input, Video Loss, Tamper-proof and Exception. And the alarm events can trigger the alarm actions, such as Notify Surveillance Center, Send Email and Trigger Alarm Output.

## 8.3.1 Configuring Motion Detection

Motion detection is a feature which can alert the personnel and record the video for the motion occurred in the surveillance scene.

***Steps:***

1. **Set the Motion Detection Area**

   ***Steps:***

   (1) Click **Remote Configuration> Camera Settings> Motion Detection** to enter the motion detection settings interface.

   (2) Select the camera to configure the motion detection.

   (3) Check the checkbox of **Enable Motion Detection**.

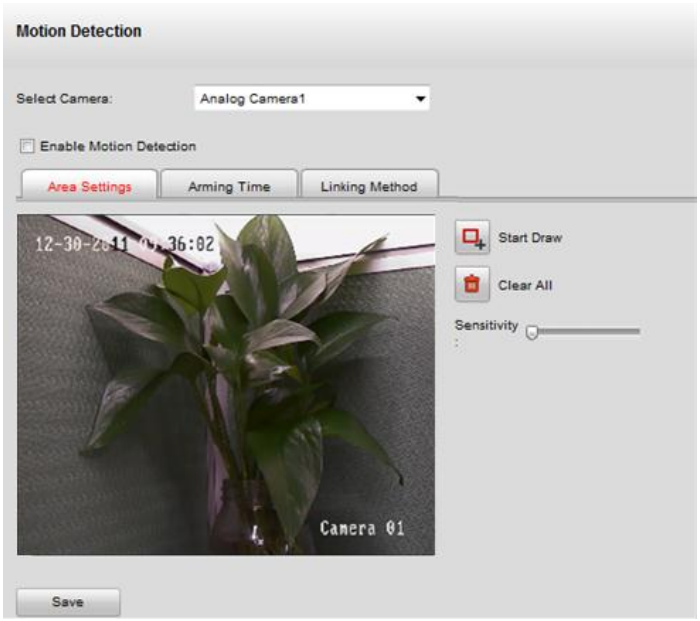



Figure 8.9 Motion Detection Settings

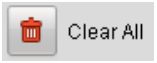
(4) Click the

button. Draw motion detection area by clicking and dragging the mouse in the live video image.

***Note:*** You are allowed to draw 8 motion detection areas in the same image.

(5) Click the

button to finish drawing.

You can click the 

button to clear all areas.

(6) Move the slide bar

to set the sensitivity of the camera.

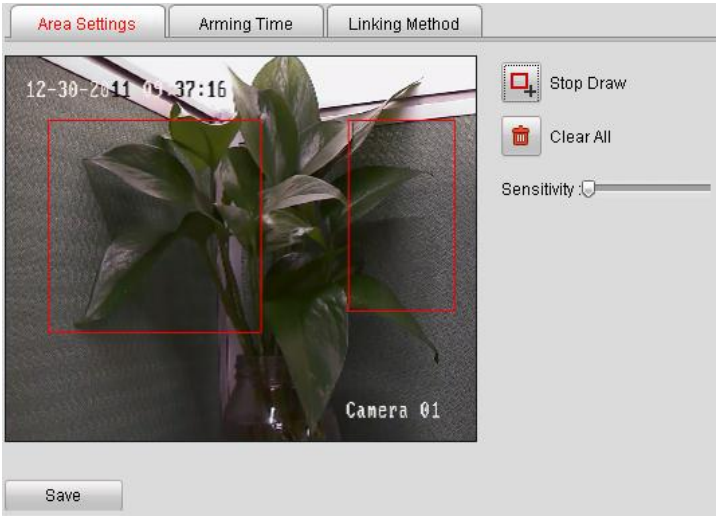



Figure 8.10 Motion Detection-Area Settings

(7) Click **Save** button to save the settings.

2. **Set the Arming Schedule for Motion Detection**

***Steps:***

(1) Click the **Arming Time** tab.

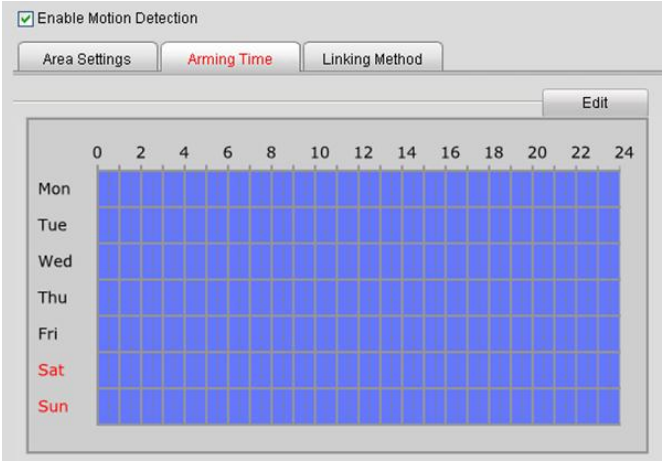



Figure 8.11 Motion Detection-Arming Time Settings

(2) Click the **Edit** button to edit the arming schedule.

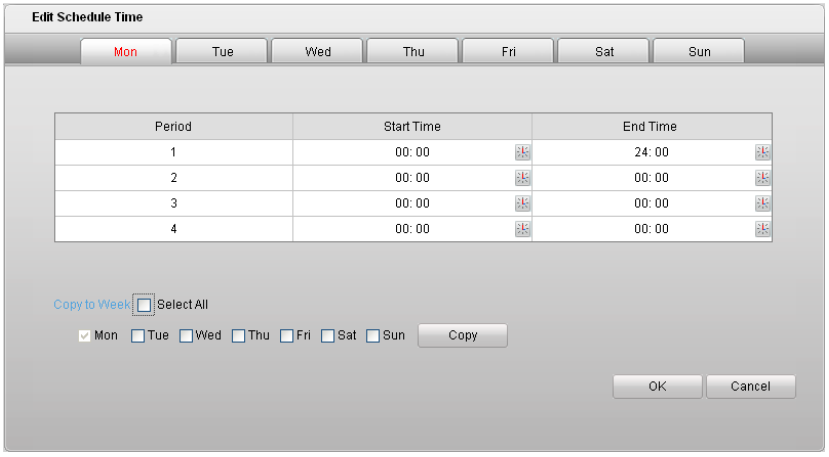



Figure 8.12 Motion Detection-Edit Arming Schedule

(3) Choose the day you want to set the arming schedule.

(4) Click the button to set the time period for the arming schedule.

(5) After you set the arming schedule, you can copy the schedule to other days.(Optional)

(6) Click **OK** button to save the settings.

***Note:*** The time of each segment can't be overlapped. Up to 8 segments can be configured for each day.

3. **Set the Alarm Actions Taken for Motion Detection**

***Purpose:***

You can specify the alarm type when an event is triggered.

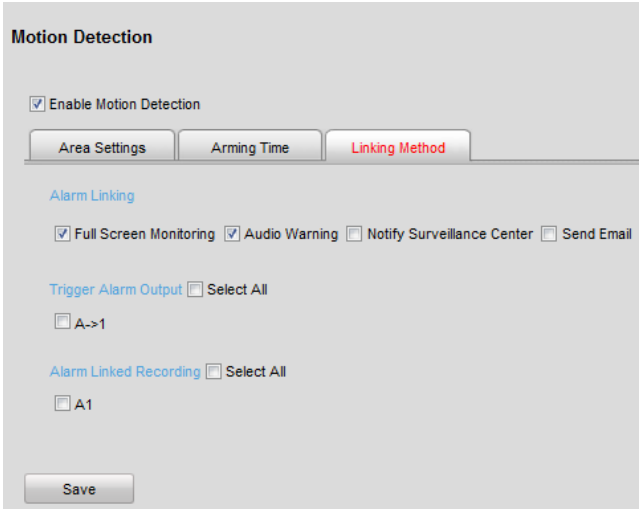



Figure 8.13 Motion Detection-Linking Method

***Steps:***

(1) Click the **Linking Method** tab to enter the setting interface.

(2) Select the alarming linkage method(s) including Full Screen Monitoring, Audio Warning, Notify Surveillance Center and Send Email.

- **Full Screen Monitoring**

When an alarm is triggered, the video image from the alarming channel configured for "full screen monitoring" will be displayed in full screen.

- **Audio Warning**

Trigger an audible beep when an alarm is detected.

- **Notify Surveillance Center**

Send an exception or alarm signal to remote alarm host when an event occurs. The alarm host refers to the PC installed with Remote Client.

- **Send Email**

Send an email with alarm information to a user or users when an event occurs.

***Note:*** To send the Email when an event occurs, you need to go to the network setting interface to set the related parameters. Refer to *Section7.3.4 Configuring Email Settings.*

(3) Select the channel you want to trigger an external alarm output when a motion detection event occurs.

Figure 8.14 Motion Detection-Trigger Alarm Output

***Note:*** To trigger an external alarm output when an event occurs, you need to go to the Alarm Output Settings interface to set the related parameters.

1) Click **Remote Configuration> Alarm Settings> Alarm Output** to enter the Alarm Output Settings interface.

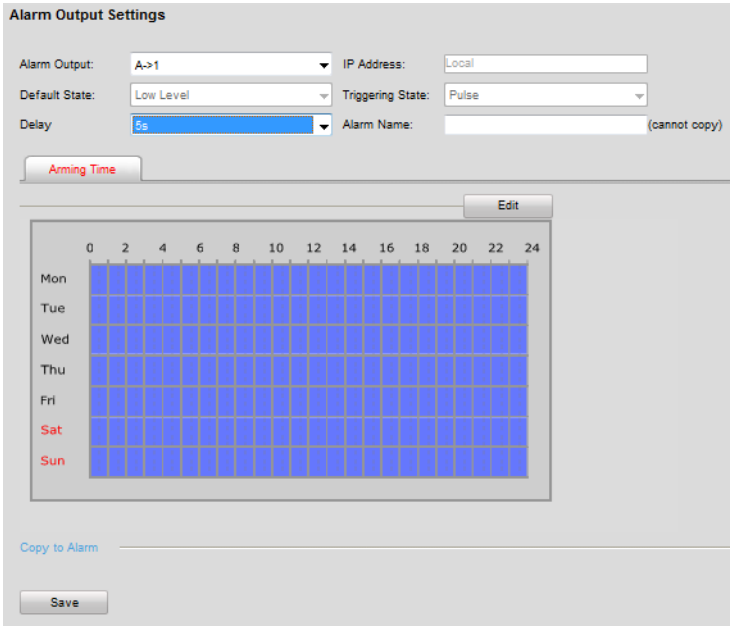



Figure 8.15 Motion Detection-Alarm Output Settings

2) Select one alarm output channel in the **Alarm Output** drop-down list.

3) The D**elay** time can be set to **5sec**, **10sec**, **30sec**, **1min**, **2min**, **5min, 10min** or **Manual**. The **Delay** refers to the time duration that the alarm output remains in effect after alarm occurs.

***Note:*** If you choose **Manual**, you need to manually disable the alarm output.

4) Click **Edit** to enter the **Edit Schedule Time** interface. The time schedule configuration is the

same as the Setting of the Arming Schedule for Motion Detection. Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 8.3.1 Configuring Motion Detection.*

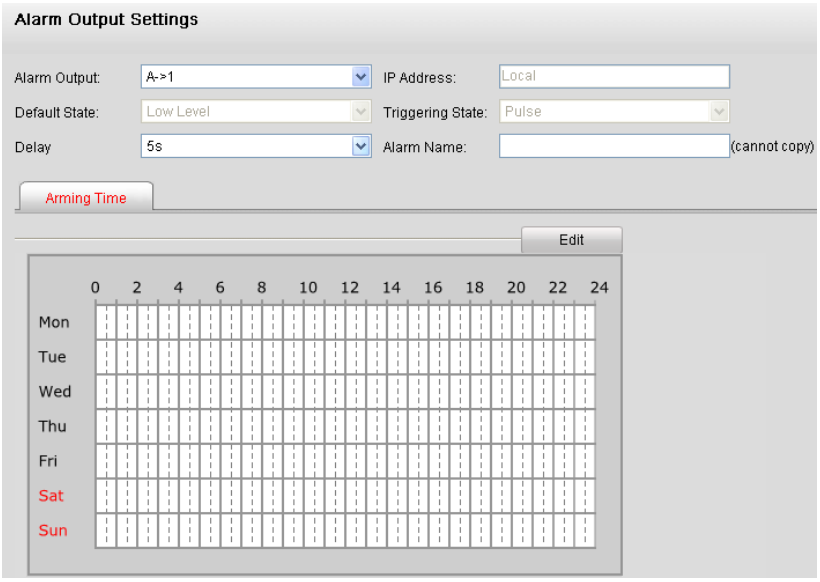



Figure 8.16 Motion Detection-Alarm Output Settings

5) Return to the Alarm Output Settings interface and click **Save** to save the settings.

(4) Select the channel you want to trigger recording when a motion detection event occurs.

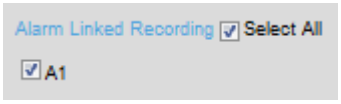



Figure 8.17 Motion Detection-Alarm Linked Recording

(5) Click **Save** to save the settings of linking method motion detection.

# 8.3.2 Configuring External Alarm Input

***Steps:***

1. Click **Remote Configuration> Alarm Settings> Alarm Input** to enter the Alarm Settings interface.
2. Choose the alarm input number and the Alarm Type. The alarm type can be NO (Normally Open) and NC (Normally Closed).

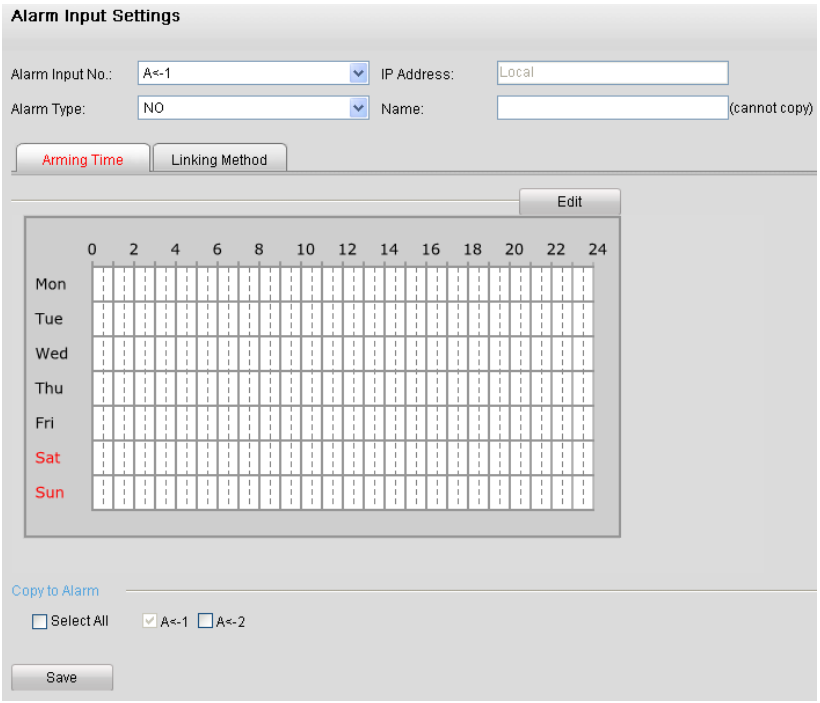



Figure 8.18 Alarm Input Settings-Arming Time

3. Set the arming schedule for the alarm input. Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 8.3.1 Configuring Motion Detection.*
4. Click the **Linking Metho**d tab to set the actions taken for the alarm input. Refer to *Step 3* ***Set the Alarm Actions Taken for Motion Detection*** in *Section 8.3.1 Configuring Motion Detection*.
5. You can also choose the PTZ linking for the alarm input if your camera is installed with a pan/tilt unit.
   (1) Choose the PTZ Linking channel.
   (2) Check the relative checkbox to enable Preset Calling, Patrol Calling or Pattern Calling.

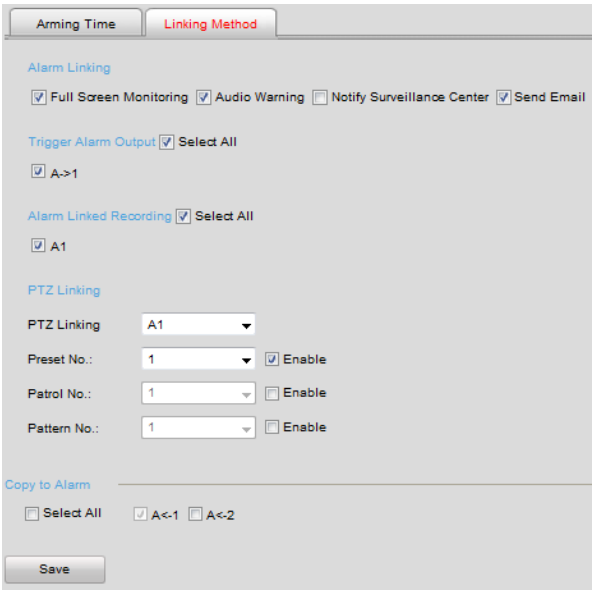



Figure 8.19 Alarm Input Settings-Linking Method

6. You can copy your settings to other alarm inputs.
7. Click **Save** to save the settings.

## 8.3.3 Configuring Video Loss Alarm

***Steps:***

1. Click **Remote Configuration> Camera Settings> Video Loss** to enter the video loss alarm setting interface.

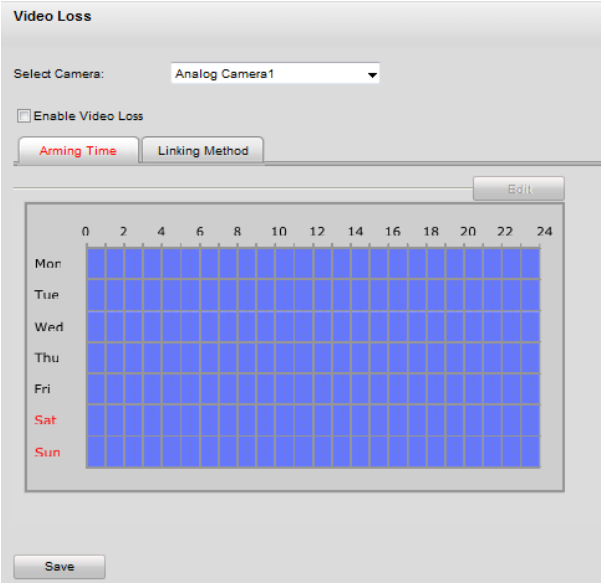



Figure 8.20 Video Loss Alarm Settings

2. Select the camera to configure the video loss alarm.
3. Check the checkbox of **Enable Video Loss**.
4. Click **Edit** to edit the arming schedule for video loss detection. The arming schedule configuration is the same as the Setting of the Arming Schedule for Motion Detection. Please refer to *Step 2 Set the Arming Schedule for Motion Detection* in *Section 8.3.1 Configuring Motion Detection*.
5. Click the **Linking Method** tab to set the actions taken for the video loss alarm. Please refer to *Step 3* **Set the Alarm Actions Taken for Motion Detection** in *Section 8.3.1 Configuring Motion Detection*.

## 8.3.4 Configuring Tamper-proof Alarm

***Purpose:***

If you enable this function, an alarm will be triggered when the image of camera is tampered with.

***Steps:***

1. Click **Remote Configuration> Camera Settings> Tamper-proof** to enter the Tamper-proof Settings interface.
2. Select the camera to configiure the tamper-proof detection alarm.

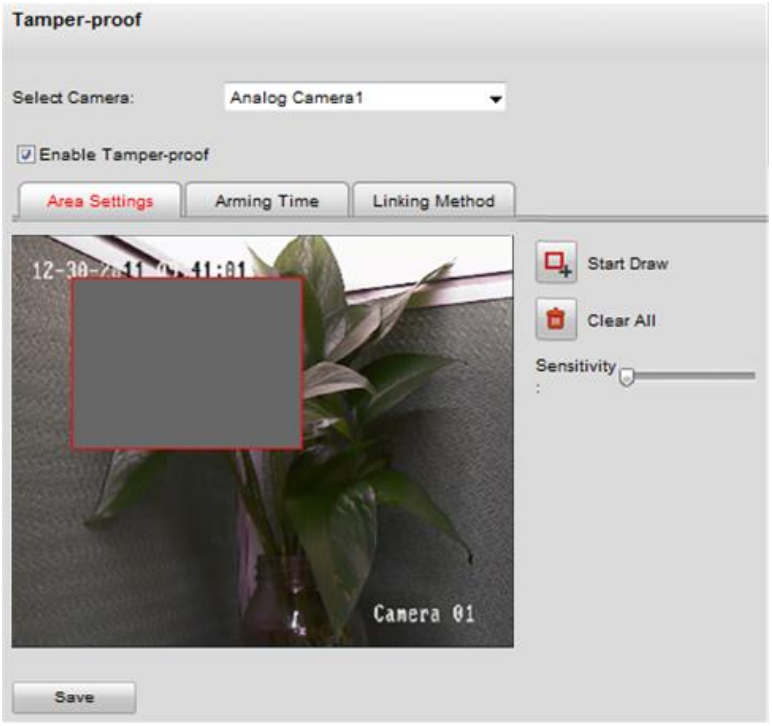



Figure 8.21 Tamper-proof Alarm Settings

3. Click checkbox of **Enable Tamper-proof**.
4. Set the tamper-Proof area. Please refer to *Step 1 Set the Motion Detection Area* in *Chapter 8.3.1*.
6. Click **Edit** to edit the arming schedule for tamper-proof. The arming schedule configuration is the same as the Setting of the Arming Schedule for Motion Detection. Please refer to *Step 2 Set the Arming Schedule for Motion Detection* in *Section 8.3.1 Configuring Motion Detection.*
7. Click the **Linking Method** tab to set the actions taken for the tamper-proof alarm. Please refer to *Step 3* **Set the Alarm Actions Taken for Motion Detection** in *Section 8.3.1 Configuring Motion Detection*.

## 8.3.5 Handling Exception

The exception type can be HDD full, HDD error, network disconnected, IP address conflict, illegal access, video standard mismatch, video signal exception, record/capture exception and video resolution mismatch.

***Note:*** When the selected resolution under **Remote Configuration > Camera Settings >Video Settings** and the actual video input resolution are mismatched, the exception alarm will occur. Please refer to *Section 8.2 Configuring Video Settings.*

***Steps:***

1. Click **Remote Configuration> Exception** to enter the Exception Settings interface.
2. Check the checkbox to set the actions taken for the Exception alarm. Please refer to *Step 3* ***Set the Alarm Actions Taken for Motion Detection*** in *Section 8.3.1 Configuring Motion Detection*.

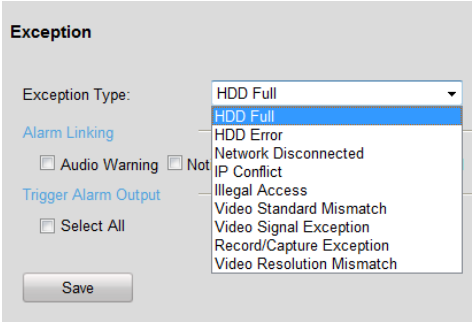



Figure 8.22 Handling Exceptions

3. Click **Save** to save the settings.

# 8.4 Configuring Privacy Mask

***Purpose:***

Privacy Mask enables you to cover certain areas on the video of the channel to prevent your privacy from live viewing and recording.

***Steps:***

1. Click **Configuration>Remote Configuration>Camera Settings>Privacy Mask** to enter the privacy mask settings interface.
2. Select the camera to configure privacy mask.
3. Check the checkbox of **Enable Privacy Mask** to enable this function.

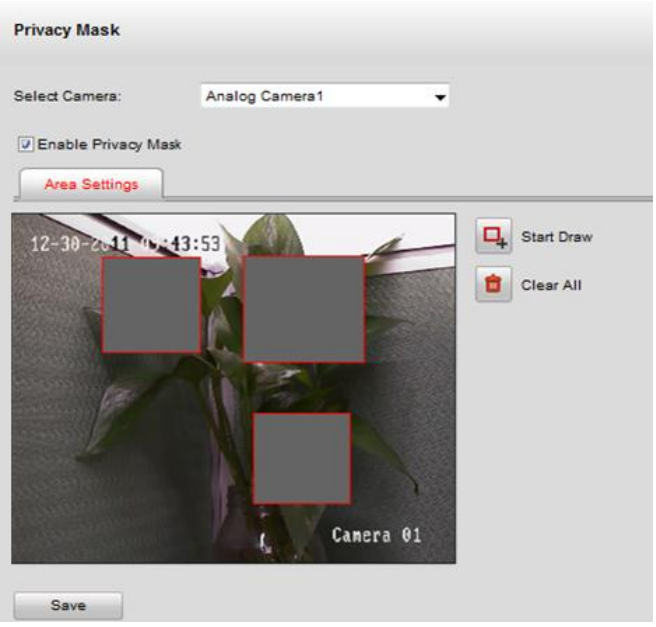



Figure 8.23 Privacy Mask Settings

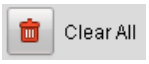
4. Click the

button.
5. Draw the mask area by clicking and dragging the mouse in the live video image.

***Note:*** Up to 4 privacy mask areas can be configured.

6. When finishing the area setting, click the

button to finish drawing.

   You can click the 

button to clear all of the areas you set without saving it.

7. Click **Save** to save the settings.

# 8.5 Configuring RS-232/485 Settings

## 8.5.1 RS-232 Settings

***Purpose:***

The RS-232 serial port can be used for the configuration by the serial port management tools.

***Steps:***

1. Click **Remote Configuration> Serial Port Settings> 232 Serial Port** to enter RS-232 port setting interface:

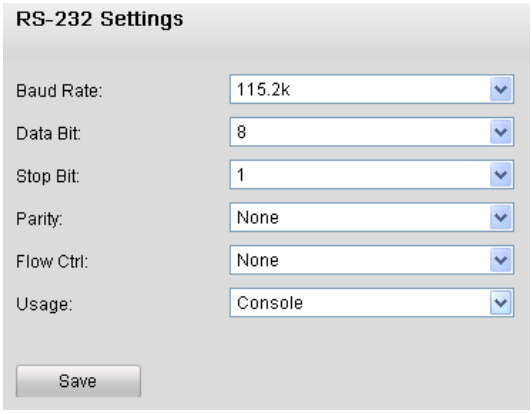



Figure 8.24 RS-232 Port Settings

***Note:*** If you want to connect the camera by the RS-232 port, the parameters of the RS-232 should be exactly the same with the parameters you configured here.

2. Click **Save** to save the settings.

## 8.5.2 RS-485 Settings

***Purpose:***

The RS-485 serial port is used to control the PTZ of the camera. The configuring of the PTZ parameters should be done before you control the PTZ unit.

***Steps:***

1. Click **Remote Configuration> Serial Port Settings> 485 Serial Port** to enter RS-485 port setting interface:

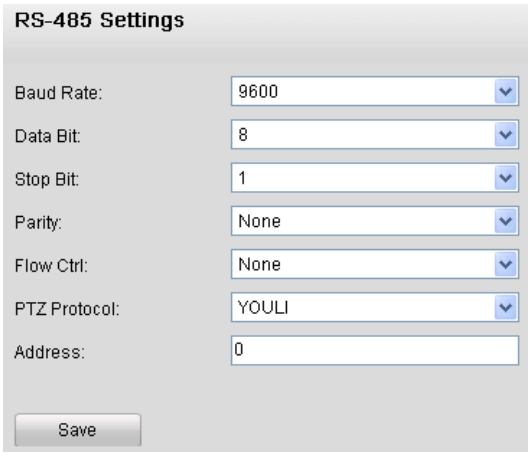



Figure 8.25 RS-485 Port Settings

2. Set the RS-485 parameters.

   By default, the Baud Rate is set as 9600, the Data Bit as 8, the Stop Bit as 1 and the Parity and Flow Control as None.

   ***Note:*** The Baud Rate, Address and PTZ Protocol parameters should be exactly the same as the parameters of the connected PTZ camera.

3. Click **Save** to save the settings.

# Chapter 9 Record Settings

***Before you start***

Make sure the Encoder is connected with HDD (for DS-6600HFI/HCI-SATA) or network disk, and the HDD or network disk has been initialized for the first time to use. Please refer to *Section 7.3.5 Adding Network Disk* for details.

Two recording types can be configured: Manual and Scheduled. The following section introduces the configuration of scheduled recording. For the manual recording, refer to *Section 6.1 Starting Live View*.

***Steps:***

1. Click **Remote Configuration> Camera Settings> Record Schedule** to enter Record Schedule settings interface.
2. Select the camera to configure the record schedule.
3. Check the checkbox of **Enable Schedule** to enable recording schedule.

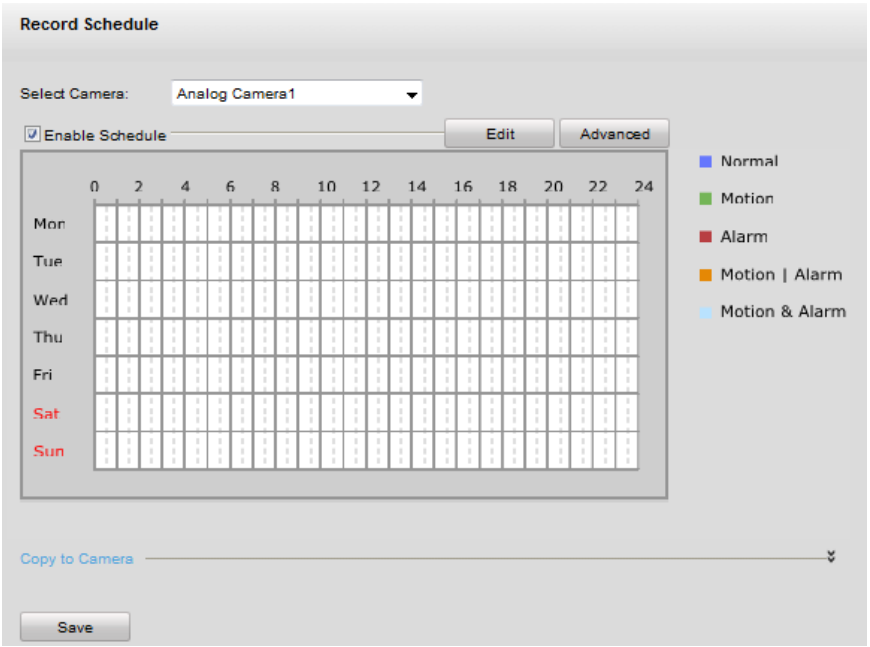



Figure 9.1 RS-485 Port Settings

4. Choose the day in a week to configure scheduled recording.
5. Click **Edit** to edit record schedule**.**

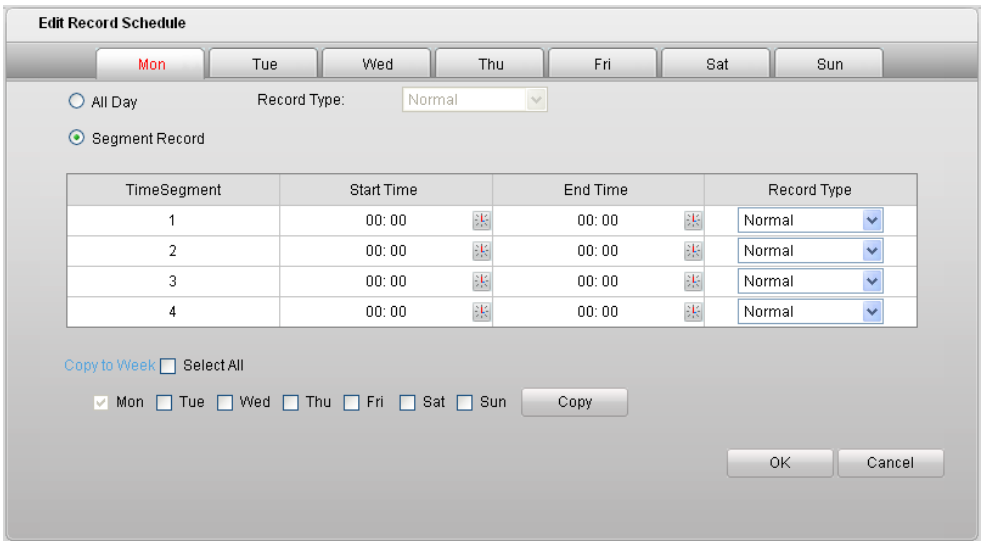



Figure 9.2 Edit Schedule

1) Configure All Day or Segment Record:

- If you want to configure the all-day recording, please check the **All Day** checkbox.
- If you want to record in different time sections, check the **Segment Record** checkbox. Set the **Start Time** and **End Time.**

***Note:*** The time of each segment can't be overlapped. Up to 8 segments can be configured.

2) Select a **Record Type**. The record type can be Normal, Motion, Alarm, Motion & Alarm, and Motion | Alarm.

- **Normal**

  If you select **Normal**, the video will be recorded automatically according to the time of the schedule.

- **Record Triggered by Motion Detection**

  If you select **Motion**, the video will be recorded when the motion is detected.

  Besides configuring the recording schedule, you have to set the motion detection area and check the checkbox of **Alarm Linked Recording** on the **Linking Method** of **Motion Detection** settings interface. Refer to the *Step 1* ***Set the Motion Detection Area*** *in the Section 5.7.1 Configuring Motion Detection.*

- **Record Triggered by Alarm**

  If you select **Alarm**, the video will be recorded when the alarm is triggered.

  Besides configuring the recording schedule, you have to set the **Alarm Type** and check the checkbox of **Alarm Linked Recording** on the **Linking Method** of **Alarm Input Settings** interface.

- **Record Triggered by Motion & Alarm**

  If you select **Motion & Alarm**, the video will be recorded when the motion and alarm are triggered at the same time.

  Besides configuring the recording schedule, you have to configure the settings on the **Motion Detection** and **Alarm Input Settings** interfaces.

- **Record Triggered by Motion | Alarm**

  If you select **Motion | Alarm**, the video will be recorded when the alarm is triggered or the motion is detected.

  Besides configuring the recording schedule, you have to configure the settings on the **Motion Detection** and **Alarm Input Settings** interfaces.

3) Check the checkbox of **Select All** and click **Copy** to copy settings of this day to the whole week. You can

also check any of the checkboxes before the date and click **Copy**.

4) Click **OK** to save the settings and exit the **Edit Schedule** interface.

6. Click **Advanced** to configure advanced record parameters**.**

- **Pre-Record:** The Pre-Record time can be configured as No Pre-Record, 5 s, 10 s, 15 s, 20 s, 25 s or 30 s.
- **Post Record:** The Post Record time can be configured as 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min.

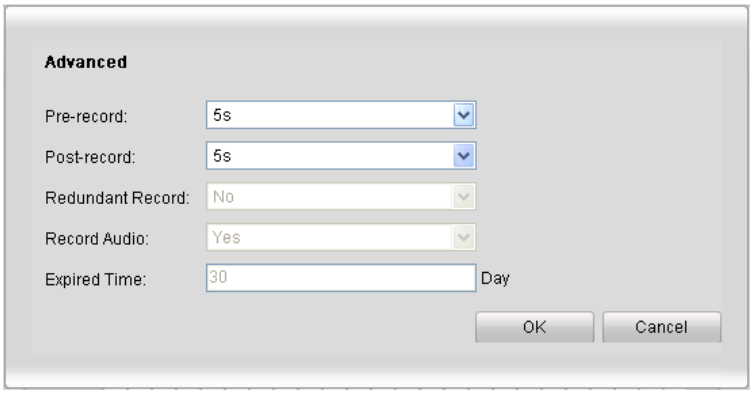



Figure 9.3 Edit Schedule

10. If you want to copy the display settings of the current camera to other cameras, spread the **Copy to Camera** panel and select the camera(s) to copy, or click **Select All** to select all cameras.

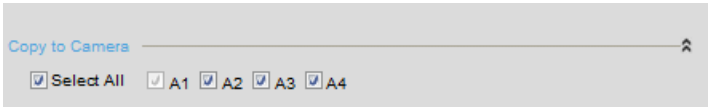



Figure 9.4 Copy to Camera

11. Click **Save** to validate the above settings.

# Chapter 10 Playback

***Purpose:***

The recorded video files can be remotely played back through the WEB browser.

***Steps:***

1. Click **Playback** on the menu bar to enter playback interface:

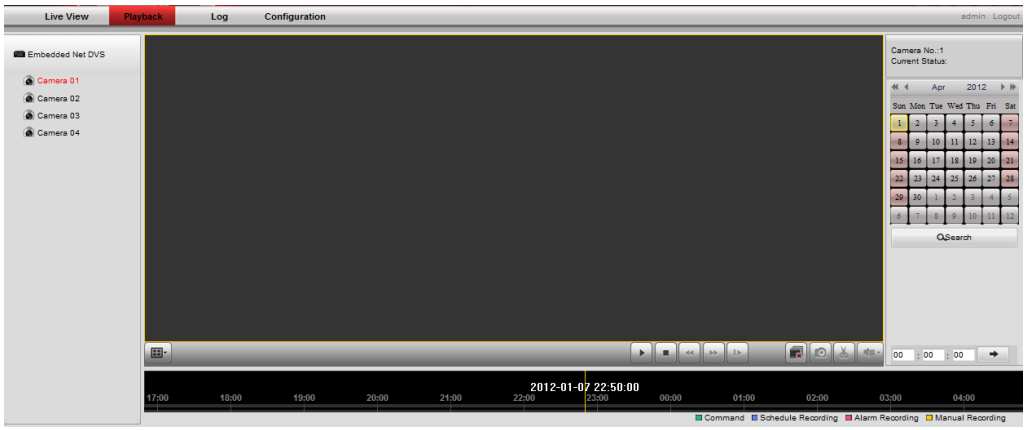



Figure 10.1 Playback Page

---

2. Click the camera from the device list for playback.
3. Select the date from the calendar and click **Search**.

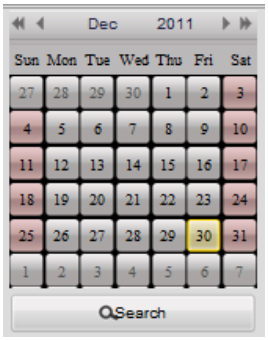



Figure 10.2 Select Date for Search

---

4. Click the **Play** button to play the video file searched on the current date.

Figure 10.3 Playback Page

---

5. Use the buttons on the toolbar to operate in playback mode

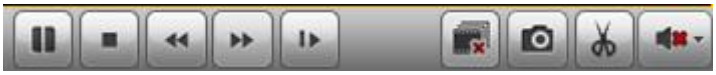
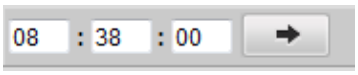


Figure 10.4 Playback Toolbar

Table 10.1 Description of Toolbar

| Button | Operation | Button | Operation |
|---|---|---|---|
| | Play | | Stop all channels from playing |
| | Stop | | Capture pictures in playback mode |
| | Slow forward | | Start/Stop clipping video files |
| | Fast forward | | Audio on/off |
| | Play by single frame | | |

6. You can also drag the progress bar with the mouse to locate the exact playback point. You can also input the time and click button to locate the playback point.



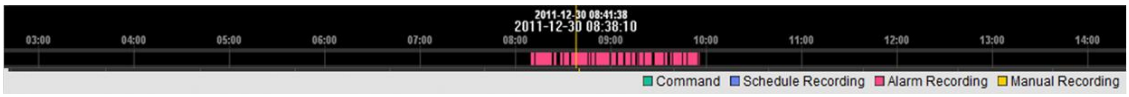




Figure 10.5 Progress Bar

The color of the video on the progress bar stands for the different video types .

Figure 10.6 Progress Bar

# Chapter 11 Managing User Accounts

Click **Remote Configuration**>**Remote Configuration**>**User Management** to enter the User Information interface:

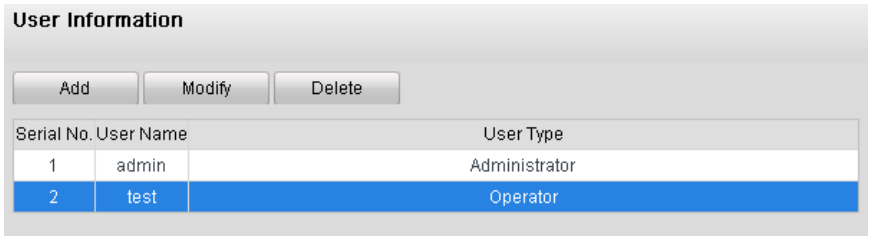



Figure 11.1 User Information Interface

The **admin** user is allowed to create normal users. And up to 31 users can be created. .

## 11.1 Adding a User

***Steps:***

1. Click **Add** to enter the setting interface.
2. Input the **User Name** and **Password.**
3. Select the **User type** to **Operator** or **User.**

   The user type indicates the permissions you give to the user.

   - **Operator:** The *Operator* user level has permission of Local Log Search in Local Configuration, Remote Log Search and Two-way Audio in Remote Configuration and all operating permission in Camera Configuration.
   - **User:** The Guest user has permission of Local Log Search in Local Configuration, Remote Log Search in Remote Configuration and only has the local/remote playback in the Camera Configuration.

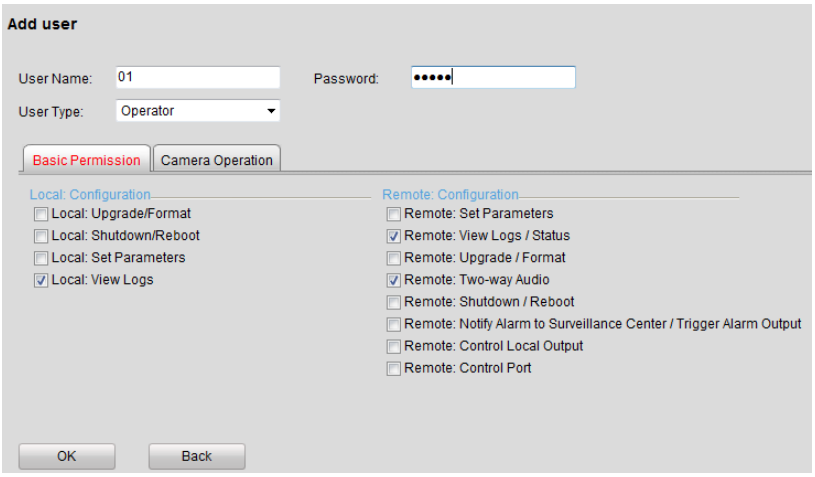



Figure 11.2 Add a User

4. Configure the user permission for the user, including the Basic Permission and Camera Operation.
5. Click **OK** to finish the user addition.

# 11.2 Modifying a User

***Steps:***

1. Select a user account from the list on the User Information interface to be modified.

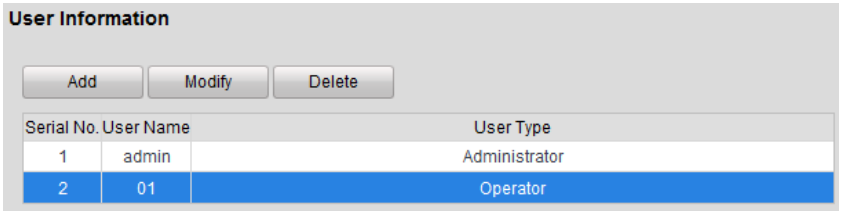



Figure 11.3 Select a User

2. Click **Modify** to enter the setting interface.

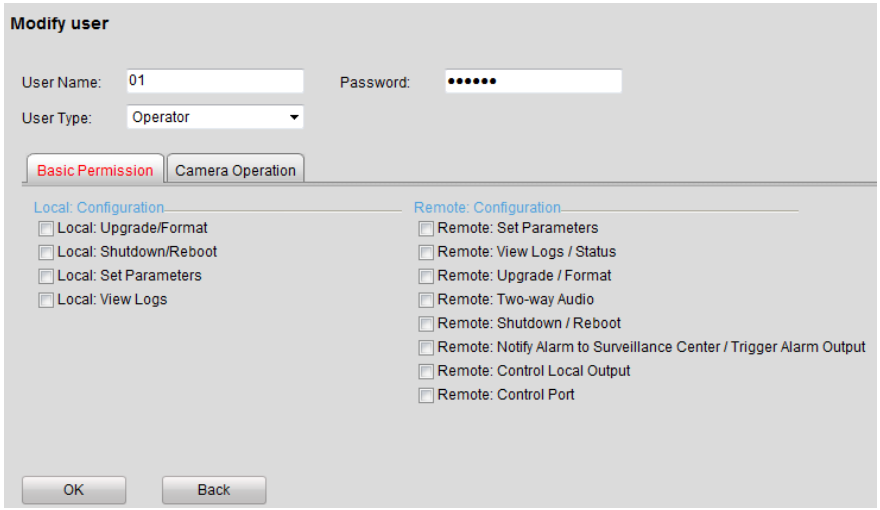



Figure 11.4 Modify a User

3. Modify the **User Name**, **Password** and then select **User type**.
4. Configure the user permission for the user, including the Basic Permission and Camera Operation.
5. Click **OK** to finish the user modification.

***Note:*** You need the admin password to modify the admin user.

# 11.3 Deleting a User

***Steps:***

1. Select a user account from the list on the User Information interface to be deleted.
2. Click **Delete,** and the information box will pop up:

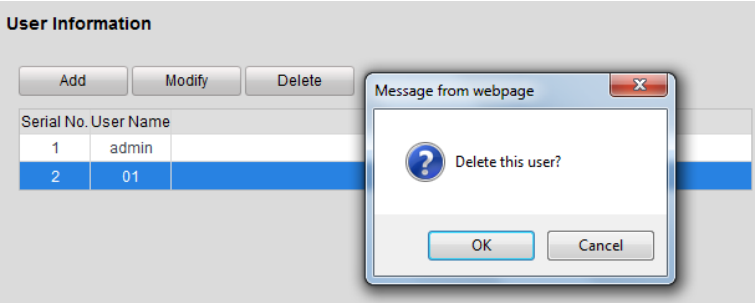



Figure 11.5 Delete a User

3. Click **OK** to delete the selected user account.

# Chapter 12 Log Search and Maintenance

## 12.1 Log Search

***Purpose***

The operation, alarm, exception and information of the device can be stored in log files, which can be viewed and exported at any time.

***Before you start***

The Log function can be realized only when the Encoder is connected with HDD (for DS-6600HFI/HCI-SATA) or network disk. And make sure the HDD or network disk has been initialized for the first time to use. Please refer to *Section 7.3.5 Adding Network Disk* for details.

***Steps:***

1. Click **Log** on the menu bar to enter the Log interface.
2. Set the log search conditions to refine your search, including the Major Type, Minor Type, Start Time and End Time.
3. Click the **Search** button to start searching log files.
4. The matched log files will be displayed on the list shown below.

   ***Note*:** Up to 100 log files can be displayed each time.

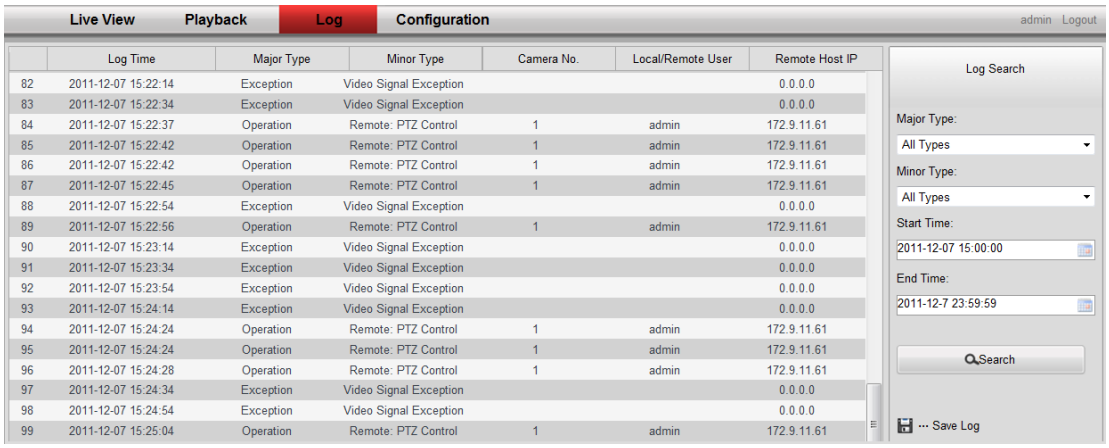
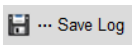

Live View
Playback
Log
Configuration
admin
Logout
Log Time
Major Type
Minor Type
Camera No.
Local/Remote User
Remote Host IP
82 2011-12-07 15:22:14 Exception Video Signal Exception 0.0.0.0
83 2011-12-07 15:22:34 Exception Video Signal Exception 0.0.0.0
84 2011-12-07 15:22:37 Operation Remote: PTZ Control 1 admin 172.9.11.61
85 2011-12-07 15:22:42 Operation Remote: PTZ Control 1 admin 172.9.11.61
86 2011-12-07 15:22:42 Operation Remote: PTZ Control 1 admin 172.9.11.61
87 2011-12-07 15:22:45 Operation Remote: PTZ Control 1 admin 172.9.11.61
88 2011-12-07 15:22:54 Exception Video Signal Exception 0.0.0.0
89 2011-12-07 15:22:56 Operation Remote: PTZ Control 1 admin 172.9.11.61
90 2011-12-07 15:23:14 Exception Video Signal Exception 0.0.0.0
91 2011-12-07 15:23:34 Exception Video Signal Exception 0.0.0.0
92 2011-12-07 15:23:54 Exception Video Signal Exception 0.0.0.0
93 2011-12-07 15:24:14 Exception Video Signal Exception 0.0.0.0
94 2011-12-07 15:24:24 Operation Remote: PTZ Control 1 admin 172.9.11.61
95 2011-12-07 15:24:24 Operation Remote: PTZ Control 1 admin 172.9.11.61
96 2011-12-07 15:24:28 Operation Remote: PTZ Control 1 admin 172.9.11.61
97 2011-12-07 15:24:34 Exception Video Signal Exception 0.0.0.0
98 2011-12-07 15:24:54 Exception Video Signal Exception 0.0.0.0
99 2011-12-07 15:25:04 Operation Remote: PTZ Control 1 admin 172.9.11.61
Log Search
Major Type:
All Types
Minor Type:
All Types
Start Time:
2011-12-07 15:00:00
End Time:
2011-12-7 23:59:59
Search
··· Save Log

Figure 12.1 Log Search Interface

5. You can click the 

button to save the searched log files to local directory.

# 12.2 Viewing Device Information

Click **Remote Configuration** > **Device Parameters** > **Device Information** to enter the Device Information interface of the encoder:

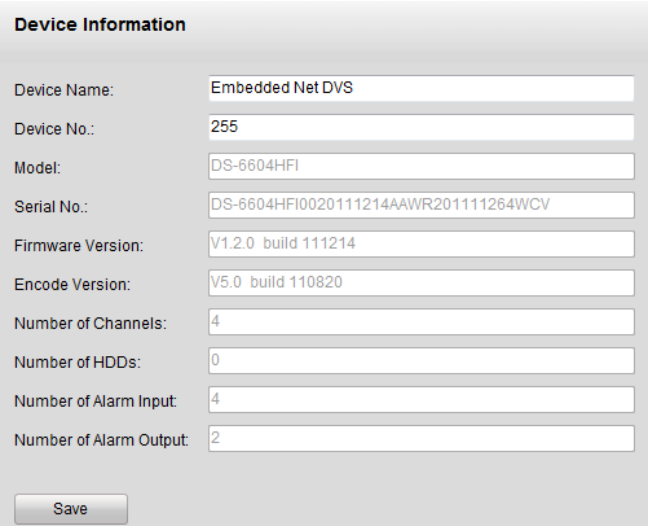



Figure 12.2 Device Information

You can edit the Device Name and Device No., and view the device information, including Model, Serial No., Firmware/Encode Version, Number of Channels, Number of HDDs, and Number of Alarm Input / Output.

# 12.2 Maintenance

Click **Remote Configuration** >**Maintenance** to enter the Maintenance interface of the encoder:

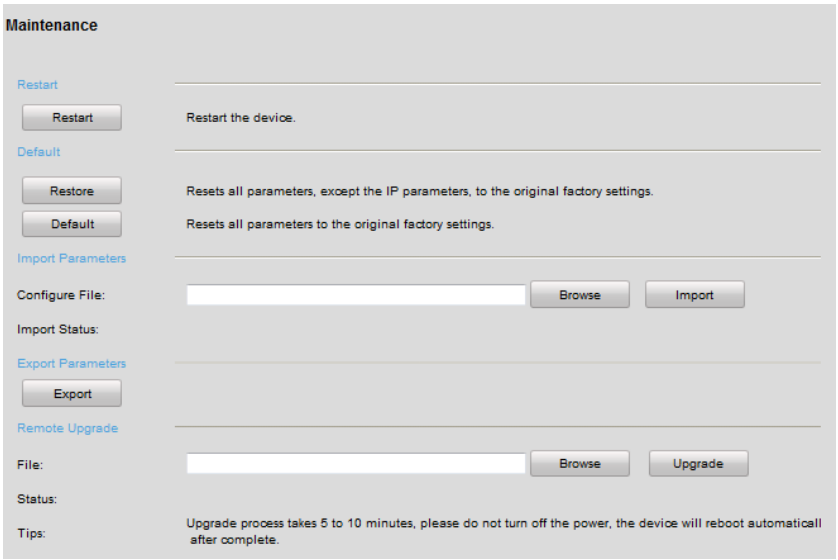



Figure 12.3 Maintenance Page

## 12.3.1 Restarting the Device

On the **Maintenance> Restart** interface, click **Restart** to enter the following dialog box:

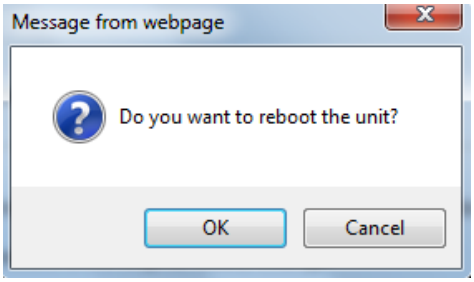



Figure 12.4 Restart the Device

Click **OK** to restart the device or **Cancel** to cancel the operation.

## 12.3.2 Restoring Default Settings

On the **Maintenance> Default** interface,, click **Restore or Default** to restore device parameters to the factory settings.

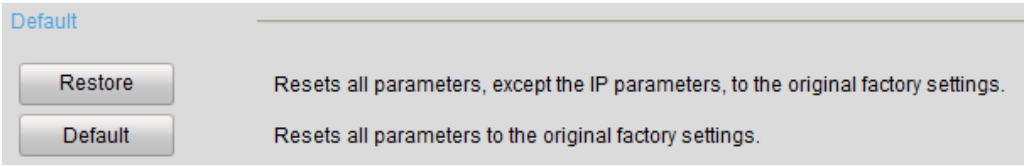

Default
Restore
Resets all parameters, except the IP parameters, to the original factory settings.
Default
Resets all parameters to the original factory settings.

Figure 12.5 Restore Default Settings

- By selecting the **Restore** button, the device restores the default settings for the parameters except the IP address, subnet mask, gateway and port.
- By selecting the **Default** button, the device restores the default settings for all parameters.

On the pop-up message box, click **OK** to restore and reboot the device to validate the settings.

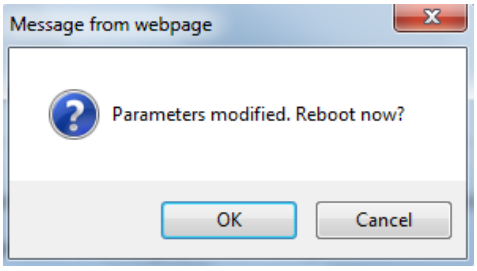



Figure 12.6 Pop-up Message Box

## 12.3.3 Importing/Exporting Parameters

The configuration files of the device can be exported to local device for backup; and the configuration files of one

device can be imported to multiple device devices if they are to be configured with the same parameters.

- On the **Maintenance> Import Parameters** interface, click **Browse** to select the file from the selected backup device and then click the **Import** button to import a configuration file,

***Note:*** After having finished the import of configuration files, the device will reboot automatically.

- On the **Maintenance> Export Parameters** interface, click the **Export** button to export configuration files to the selected local backup device.

Figure 12.7 Import/Export Parameters

## 12.3.4 Upgrading the System

On the **Maintenance> Remote Upgrade** interface, click **Browse** to select the local update file and then click **Upgrade** to start remote upgrade.

Figure 12.8 Remote Upgrade

# Chapter 13 Appendix

# Appendix A FAQ

- **Why cannot ping the DVS?**

  Please refer to Chapter 3 to configure the device's IP being in the same segment as your PC, and check the cable and switch.

- **Why the transparent channel has been set, but the encoder still cannot receive data?**

  1. Check if RS-232 has been set as transparent channel first.
  2. Check the connection of encoder.

- **Why cannot add encoder with software?**

  1. Check the encoder IP.
  2. Make sure the cable is connected.
  3. User name and password of encoder are correct.

- **Why cannot control the connected PTZ camera or speed dome through DVS?**

  1. Check the RS-485 connection of the device with the PTZ camera or dome.
  2. Check whether the PTZ address, protocol and baud rate of the device are set to be the same with the connected camera or speed dome.

- **Why cannot view the video image through IE browser?**

  1. Check the network connection.
  2. Check the user name and password of DVS are entered correctly.
  3. Check the port of DVS is entered correctly.

# Appendix B Glossary

**Dual Stream**

Dual stream refers to that one channel of video stream can be divided into double independent output streams through the video encoder. Shown as below:

The resolution, frame rate, bitrate and other parameters of the output stream are independently programmable. The two streams generated may meet different application demands, e.g., one stream is used for HDD storage, and the other for transmission via Internet.

**Transparent Channel**

The transparent channel indicates the channel used for transmitting data, and through which the data transmitted receives no handling and thus retains no change. By remotely connecting the keyboard with the decoder, the transparent channel can be established to realize control of dome or Pan/Tilt unit connected to remote encoder.

**Resolution**

The type of resolution can be divided into the display resolution, image resolution and pixel resolution.

The display resolution refers to the maximum display zone on the screen in certain display mode, measured in horizontal and vertical pixel.

The image resolution describes the detail a digital image holds, measured in horizontal and vertical pixel as well.

In case the image resolution is higher than the display resolution, proportion of the image will not be displayed on the screen.

The pixel resolution indicates the ratio of the pixel width and length. Different pixel width/length ratio will result in different shape of image.

Generally the image resolution is applied to the digital surveillance:

PAL: QCIF (176*144), CIF(352*288), 2CIF(704*288), DCIF(528*384), 4CIF(704*576).

NTSC: QCIF (176*120), CIF(352*240), 2CIF(704*240), DCIF(528*320), 4CIF(704*480).

The display resolution is usually applied to VGA monitor:

640*480, 800*600, 1024*768, etc.

**Streaming Server**

The streaming server refers to a dedicated computer system or server which runs the corresponding streaming media software to provide the delivery of data. It is generally applied to the delivery of the same massive data, which may greatly reduce the load of the host as well as save internet resources.